ABSTRACT
OF

An Oration
ON

MODERN SURGERY AS A SCIENCE AND AN ART.

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MR. PRESIDENT AND FELLOWS,—While under any circumstances I should duly appreciate the honour conferred on me by the office in which I now appear before you, I feel it the more deeply from having also held—and only last year—the position of your Lettsomian Lecturer. On looking over the addresses which had previously been delivered, I perceived that the history and proceedings of this Society had been narrated so admirably—and, in fact, last year, with regard to Medicine, by my able predecessor Dr. Cholmeley—that to indulge the hope of offering some attraction I must roam in search of "fresh fields and pastures new." The subject which I have selected for my address seemed to be specially appropriate on the occasion of our approaching centenary, next year; for it has been during the modern period of the last hundred years that Surgery has gradually assumed the dignity of its present twofold position—as a science and an art. Nor should those whose pathway lies more in the direction of medicine imagine for a moment that I would presume to draw any sharp line of demarcation in favour of the progress of surgery. Neither my own taste, nor truth, would sanction any such narrow restriction. The illustrations which I shall bring before you may be more purely surgical; but the great fundamental truths which have grown up during the last century belong to a common pathology, and to an indivisible physiology and anatomy of man.

But we must move to yet higher ground than this in our contemplation of modern surgery as a science. Animated, or rather inspired, by a far more comprehensive spirit of inquiry than that which relates to the human species alone, John Hunter commenced his labours. His view of pathology was an extension of a colossal physiology and a corresponding anatomy, embracing the whole living creation. It was from this vast range of biological science that Hunter sought to interpret the structural conditions and phenomena of life in any one species, and thus, for example, to enlighten our otherwise isolated knowledge of human anatomy, physiology, and pathology—of man, structurally and functionally, in the states of health and disease. From this elevated point of view we must look to justly appreciate the Hunterian conception, and its influence on the British school of surgery. Subsequently it became apparent how largely and intimately the sciences of physics and chemistry enter into the system of biology; and thence we might trace the grand contributions of the continental schools, more especially in Germany and France. Here then we discern the three primary elements of modern scientific medicine.

But there is another and more immediate sense in which modern surgery claims the rank of a science—namely, by virtue of the progress of pathology. In this country the section of pathology which relates to surgery has assumed a representative position mainly by the labours of Sir James Paget, as recorded in his renowned lectures, and the Pathological Catalogue of the Museum of the Royal College of Surgeons; while in Germany particularly, surgical pathology has been developed by the genius of Virchow and Billroth. As the immediate source of enlightenment in surgery it has been the object I have ever had in view thus to cultivate pathology.

In relation to anatomy and physiology the truth has become fully recognised that disease is not an independent entity in the body, as if foreign to the healthy organism, but that pathology represents only modes of living and modes of dying, thus supplementing and completing the other sciences of life as one indivisible biology.

Taking our stand at the bedside, true pathology opens before us a vast field for culture. Functionable disturbances have to be connected, if possible, with alterations of structure, with perhaps changes of physical character and of chemical composition in the organs, textures, or fluids of the body. Diseases thus constituted have to be traced back to their causes, either to other diseases, local or constitutional, within the body, or to external circumstances; while the operation of the disease itself as a cause of other morbid conditions must also be investigated; and, lastly, the vital history of the whole has to be watched and anticipated in regard to its course, terminations, and consequences. Accordingly, clinical observation embraces the threefold division familiarly known as diagnosis, etiology, and prognosis; and it is in the development of these subdivisions of clinical inquiry, guided by the progress of pathology instead of the mere suggestions of empirical experience, that we may discover the more immediate aspects of modern surgery as a science.

First and foremost in virtue of *Diagnosis*. The leading character of modern diagnosis seems to be the earlier and more exact detection and discrimination of diseases. Look for a few moments, and gather some of the produce of the methods of modern diagnosis.

Physical diagnosis has been pursued with increasing exactitude of observation and delicacy of appliances in all the departments of modern surgery, scarcely less than in medicine, which, with regard to diseases of the thoracic organs more particularly, has almost revolutionised our clinical knowledge. The eye, the hand, the ear have been alike taught to see, to feel, to hear in the course of bedside examination. Nowadays we can hardly realise the truthful record left by John Bell of surgeons formerly: "Every day," says he, "we see the surgeon mistaking blood for matter, flesh for bone, and tumours malignant in their nature for indolent and harmless swellings." Where marks of modern progress abound on all sides it is almost difficult and unnecessary to select particular instances; but I might point to diseases of the joints, for example; the physical signs in respect to the shape, size, and consistency of the swelling being characteristically different in each inflammatory affection of a joint. The globular swelling of articular caries contrasts with the enlargement from distension of the capsule in synovitis, and both differ notably from the slight, marginal, puffy swelling, corresponding to the outline of the cartilages in primary ulceration of the articular surfaces.

Passing on to the method of diagnosis by *structural* characters, we are led to examine all those changes of texture which are announced by débris, or by morbid products and secretions, discharged from the natural passages—as the mouth, œsophagus, stomach and intestines, the lungs, urinary bladder, kidneys, uterus, and vagina; those also which are yielded externally, by or through the skin, or procured by puncture, as from tumours. This turning out of the interior of the body, or gathering from its surface, supplies the materials for all that minute inspection which is associated with the achievements of microscopic examination.

Chemical diagnosis seems to contend with the structural method for the palm of superiority, in regard to its scientific exactitude. Destined, probably, hereafter, to become the most minute method of detecting and discriminating the essential changes which constitute morbid conditions, chemical diagnosis has already thrown a vivid and penetrating light on certain classes of diseases which appertain to surgery. Urinary pathology, forming a neutral ground for research, has been cultivated by the labours of Prout, Bence Jones, Golding Bird, Lehmann, Julius Vogel, Neubauer, Owen Rees, Lionel Beale, Thudichum, Parkes, W. Roberts, Hassall, and other physicians; but urinary deposits have to be examined also by surgeons, if they would practise their art in the light of modern progress. All the various morbid conditions of the urine are of diagnostic importance in the treatment of surgical diseases, and relative to the favourable circumstances for surgical operations and their after-treatment. This source of guidance is, I am convinced, often the key to the successes and failures of surgical practice in different hands.

I have yet to notice the *functional* method of diagnosis.

Unlike the signs of disease, as declared by physical, structural, and chemical characters, morbid conditions of function are at the best but symptoms or casual coincidences. Functional disturbance does not invariably accompany, and is not at the earliest period appreciably associated with injury or local disease; the same disturbance of function is no measure of the structural lesion existing, and it may also accompany the same disease or injury simultaneously in different parts of the body, or may be associated with different kinds of injury or disease.

In the department of *Etiology*, modern surgery has gained vast accessions from the progressive development of the laws of pathology, as to the operation of *internal* causes.

The constitutional origin of local disease—a doctrine first distinctly enunciated and demonstrated by Abernethy—has greatly modified our views of many diseases and their treatment. Diseases which were formerly regarded as of local origin, and to be removed by topical applications, have been traced back to their origin in the blood-forming processes—of which such diseases are only manifestations—and are accordingly submitted to constitutional treatment. It is thus that our knowledge of scrofulous affections has been expanded; that many skin diseases and ulcerations of mucous membranes, diseases of the eye, the bones and joints, of the testicle, and other parts, have also been referred to constitutional syphilis; while the pathology of gout and rheumatism has been equally fruitful in the interpretation of many otherwise anomalous local affections. Nor has the pathology of the nervous system been unproductive in the same direction; and thus we now recognise hysterical affections of the joints, and other parts of the body, as distinguished from inflammatory disease—a discrimination which has saved many limbs that, doubtless, were formerly sacrificed by an erring surgical interference. On the other hand, the local origin of constitutional disease embraces the causative relations of injury and local disease to morbid states of the system.

There is yet another law respecting the operation of internal causes which merits more than a passing notice: it is the causative relation of local diseases—that one morbid condition of a part may give rise to the same or to another morbid condition in another part continuous, contiguous, or remotely situated in the body. Inflammation exhibits abundant illustrations of these modes of operation as an internal cause. Nervous and muscular affections of a sympathetic kind might also be referred to as a large and most interesting class of manifestations, in all organs and regions of the body, more or less remote from their internal causes; some such affections depending on a cause of irritation in the trunk of the nerve affected, or, centrally, in the brain or spinal cord, or, proceeding from the transference of an impression from one distant nerve to another through the medium of the central nervous axis, reflected sympathetic affections.

Prognosis is a department of clinical knowledge which, compared with modern diagnosis and etiology, is far less advanced. Why is this? There are two unavoidable difficulties to be overcome. The "natural history" of disease has been watched but little, and recorded less; this deficiency in our knowledge being the result of our having to treat disease, as well as to observe its progress, so that its vital history is continually modified by the intervention of our medicinal agents and operative procedures. Then, again, individual peculiarities of constitution, age, sex, social position, and many other circumstances have to be taken into account, and the influence of which in this or that case may defy calculation.

As we yet linger at the bedside over the living human body, to watch all the wondrous phenomena it presents in its multiform diseased conditions, its innumerable modes of living and modes of dying, and as we have revealed to us also glimpses of that higher life, the innermost workings of the soul, as a *moral* agent, when almost dissociated from its co-operation with physical forces, do we not, under these privileged circumstances of observation, appreciate the superiority of our *clinical* knowledge of life over that of the pure anatomist and physiologist in their view of the body only through the course of its development and the evenly balanced condition of health; and, in our position of final intercourse with nature, are we not favoured with something like an experimental demonstration of that life which is to come beyond this brief tenure of our earthly existence?

Let us now turn to the practice of surgery as an art. Pathology has here also done much to place it on a rational basis. Foremost amongst the great truths it has brought to light is the existence, operation, and resources of a *restorative* or *reparative* power, inborn in the body, as manifested by the natural course and tendency of diseases or injuries individually towards recovery. The great doctrine of adhesion, in its various modifications, has exercised a vast influence over all surgical procedures. The older surgeons in their treatment of wounds never attempted to solicit "union by the first intention," without any intervening blood or lymph; nor did they venture to invite union by "adhesive inflammation," or simply "primary union," through the medium of plastic lymph, as it is now understood. Believing also, as John Bell records, that wherever a bone was laid bare it must exfoliate, until they saw exfoliation take place they would not permit such a wound to heal. Thus, they would not lay down the skin in a wound over the shin-bone; and if there was a lacerated scalp they cut the torn piece off. And so, too, in operations and their after-treatment. If they extirpated a tumour, they cut away also all the surrounding skin; if they trephined the skull, they always scalped the patient; and in amputating a limb, they cut by one stroke down to the bone, or, after the flap operation, they dressed the stump and flap as distinct wounds. These references to the past will suffice to remind you of the great change which the practice of surgery has undergone by virtue of a distinct recognition of the restorative power in even one of its almost innumerable modes of manifestation. Subcutaneous reparation is another law of pathology which, like that of primary adhesion, has altogether changed the character of modern surgical practice. The wide difference, both in point of time and safety, between the healing of an injury under the circumstances of exclusion from, or exposure to, the atmospheric influence, has led to the important practical distinction of wounds as being open or subcutaneous; and the same law lies at the bottom of our recognised distinction of simple and compound fractures and dislocations. The further development of this principle from the subcutaneous reparation of tendons, is exemplified by the practice of tenotomy. Introduced by Stromeyer, 1831, the subcutaneous division of tendons has become the established treatment of deformities depending on muscular contractions; and in the hands of Scarpa, Dieffenbach, Lonsdale, Little, Tamplin, W. Adams, and other surgeons, tenotomy has created that department of practice known as orthopædic surgery. Enlarging our view of the restorative power, we observe in the treatment of aneurism, as now understood, only so many imitations of the modes of natural cure, by the formation of clot, and obliteration of the aneurism. As one such imitation, we have the Hunterian application of ligature to a sound portion of artery, at some distance on the cardiac side of the aneurism, just to take off the force of the arterial current, and thus induce coagulation in the sac; a mode of cure which has since been fulfilled also by temporary compression, and for which surgery is indebted principally to the Dublin school. Distal ligature or compression would obtain the same result in the sac, by imitating occlusion of the vessel, as occurs from the impaction of a piece of clot dislodged from the sac into the artery below; and manipulation of the aneurism, as proposed by Sir William Fergusson, would effect this dislodgment by a manual procedure, which is, however, attended with considerable peril. Then, again, galvano-puncture and injection are procedures designed to induce coagulation, somewhat as in the event of inflammation affecting the sac, another rare mode of spontaneous cure.

Among the aspects of modern surgery as an art, *preventive* treatment has acquired a position beyond what might at first sight appear. The human body is encompassed by many external causes of disease, not only of a palpable character, but as subtle influences wafted about in the air or impregnating the water, by either of which media they may find an entrance through any breach of the cutaneous surface, and must gain admission in the act of breathing or the reception of food. Other such agents there are, in the recognised form of virus, ever ready to be communicated from one affected human being to another, or from the bodies of animals through poisoned wounds. Here there are so many sources of contagion or infection. Antisepticism may be regarded as disinfection in the treatment

of wounds, the object being to prevent the putrefaction of any animal fluid, as blood, liquor sanguinis, or pus, in contact with an open wound, and thence also to prevent the systemic infection known as pyæmia. The possibility of accomplishing this object is a demonstrated fact, whatever theory we admit as to its interpretation; whether we accept the germ theory of Pasteur, or incline to the chemical theory of decomposition. Exclusion of atmospheric air from any wound or breach of surface is imperative, with the interposition of some positively disinfecting or antiseptic agent, which shall prevent germination, if germs there are, that would be introduced. Hence the so-called antiseptic dressings, in all their variety, and for the experimental investigation of which, with regard to carbolic acid, surgery is so much indebted to Professor Lister. I scarcely need remind you of what preventive measures have done, both by means of cleanliness in dressings and clean air, to arrest the spread of pyæmia, erysipelas, and hospital gangrene.

What shall we say as to the propagation of another contagious disease—syphilis? No one will dispute its preventable nature, if only the primary inoculation be counteracted in time, before systemic infection has ensued; or that contamination can itself be prevented by the suppression of sexual intercourse between persons affected with primary syphilis. Yet here we are engaged in the old contention as to the *morality* of such intervention, so intimately and mysteriously are the moral feelings of our nature associated with the consideration of bodily disease. Yet surely, if by sin comes disease, it should be the highest function of morality to avert the evil consequence, as well as to overcome the evil cause. The Contagious Diseases Acts appear to be dictated by the highest moral enlightenment no less than by the wisest physical policy. This opinion seems to have been endorsed by the Medical Society of London in the recent discussion on Dr. Bell Taylor's paper respecting the Contagious Diseases Acts.

There is another principle of prevention to which I would direct your attention—the principle of *substitute* diseases, whereby any human being, having undergone a less destructive disease, a lesser evil, may be made exempt from one of a more dangerous character to himself and fellow beings. It was thus that Jenner, of immortal memory, substituted cow-pox or vaccinia for small-pox, and by preventing innumerable deaths, has preserved the lives of communities. Let us hope that the bare possibility of vaccino-syphilitic inoculation will never be allowed, on the ground of morality, to rob mankind of the inestimable boon, vaccination. Syphilisation, or repeated inoculation of the syphilitic virus to saturation of the system, was a process designed not only to cure constitutional syphilis, if possible, in a far shorter period than would otherwise be inevitable, but also for the purpose of preventing a recurrence of this disease. It is thus that Professor Boeck, of Christiania, has humanely advocated this principle of prevention, though apparently, at present, without much unequivocal success.

While the prevention of disease has gradually become one of the leading aspects of modern surgery, a spirit of *conservatism* has arisen to guide and regulate our surgical treatment. The surgical tendency of the age is to conservative operations. Given the necessity for some surgical operation for the removal of any part of the body, in consequence of otherwise incurable disease or injury, conservatism inclines always to the least act of sacrifice. Instead, therefore, of the sweeping operation of total separation or amputation, a compromise is sought, whereby the original constitution and frame, as from the Maker's hand, may be kept as nearly as possible in its normal condition of structural and functional integrit This, then, is preservative surgery. Surely, however, you will say, that is simply the object of all true surgery—the preservation of limb and life. Why, therefore, designate it by the superfluous prefix, conservative? "A rose by any other name would smell as sweet"; and surgery will be equally saving, whether called conservative or not. Yet, on looking back to the gloomy records of the past, to the reckless amputations and mutilations which were then practised, it was not, perhaps, without a significant reason that the true character of surgery should have been recalled, and a rallying standard erected, for a time at least—the standard of conservatism. It is thus, I think, that we may fairly appreciate and estimate the great impulse which Sir William Fergusson has given to modern surgery. In the year 1852—a year pregnant with vast influence over the present and future generations of surgery, Sir William published his memorable cases of joint-excision as illustrations of what he designated "conservative surgery." Not, however, without painful experience of opposition, and even ridicule, did Mr. Fergusson, and, I must add, two of the former presidents of this Society—Mr. Hancock and Mr. Henry Smith—pursue their undaunted labours; so true is it that the perversity of human nature exacts from every benefactor of his species that he shall undergo a certain amount of martyrdom.

More recently another great change has begun to dawn upon the previously accepted estimate of excision in the treatment of joint-disease. The comparison of excision with amputation must be abandoned in favour of an inquiry in the opposite direction—the advantages of the natural cure by anchylosis as compared with the same result from excision. Obviously this inquiry renders the term "conservative" altogether unnecessary and inappropriate, the question at issue no longer being that of the greater or less ablation of a part by one of two such modes of operative interference. No one has more conspicuously demonstrated the possibility of obtaining the best results by natural anchylosis than our present distinguished President, Mr. Thomas Bryant; and the reference of excision to this standard of comparison is one of the positions I advanced in my lectures on Excisional Surgery which lately I had the honour of delivering before this Society. I thus designated this department of modern surgery, as simply and clearly expressing its operative character, apart from the misleading relationship to amputation which the term "conservative" would suggest; and already the new title has found its way into the schools of Germany and France.

Allied to the conservative or preservative character of modern surgery, as displayed in all operations where the removal of some portion of the body becomes imperative; another aspect of surgery has assumed almost equal prominence,—its reparative character, as manifested in the design of all the various operations contrived for the restoration of parts lost, whether as the result of injury or disease, or for the construction of parts wanting by congenital malformation. Thence the origin of plastic surgery. Enlightened by physiology in the fact that each individual part of the body has its own separate vitality, and by pathology in the fact that the whole organism is ever ready to reacknowledge any outlying, or even detached portion, by processes of reparative union, plastic surgery has responded to these overtures of science by the contrivance of some operation of repair in almost every region—nay, in nearly every hole and corner of the body. Rhino-plastic operations, originated by Gasparo Tagliacozzi, were introduced into this country by Carpue (1814), followed by Grafe and Dieffenbach in Germany, and since almost perfected by Liston, Fergusson, and Skey. Plastic surgery has visited the lip and palate for the reparation of their congenital defects, hare-lip and cleft-palate, the myotomic modification of staphyloraphy having been devised by Sir William Fergusson; the eyelids have been submitted to various plastic procedures for loss of substance, and cheilo-plasty has restored portions of the lips destroyed by injury or disease. Then, again, the genito-urinary organs have become the scene of busy reparative operations for the cure of rectal, urinary, and uterine fistulæ, by closing up these communications between adjoining passages and regaining their continuity, restitutions for which surgery is chiefly indebted to Dieffenbach, Bozeman, Baker Brown, Marion Sims, Simpson, Bryant, and Spencer Wells; while extroversion of the bladder has been met by constructive procedures in the hands of Richard, Nélaton, Pancoast, Ayres, and Holmes, consummated, however, by Wood's operation. In the whole of this large class of operations, plastic surgery has availed itself of portions of integument borrowed, but not detached, from adjoining parts. But the physiological fact, known to Hunter, that detached portions of the body may be reunited or even transplanted, thus declaring their independent vitality, had been witnessed in many curious instances, where portions of the nose, chin, or a finger-end severed have been restored; and even the additional fact of subsequent *growth* was not unknown; yet the principle involved in these phenomena remained without much suggestiveness in the practice of surgery. This double law of

independent vitality and growth has recently received a most remarkable illustration in the practice of skin-transplantation or engrafting, as originated by M. Reverdin, and introduced into this country by Mr. Pollock. By this principle of treatment each engrafted particle of skin reproduces integument from itself as a centre; and thus large and otherwise irreparable ulcers may be healed, or contractile cicatrisation prevented, which would inevitably have resulted in incurable deformity and functional inutility of the part.

What has pathology done to guide the hand in the *performance* of surgical operations? The question takes this executive form, because the design or plan and purpose of surgical operations, as indicated by pathology, is exhibited in all those operations wherein the procedure is regulated by the character and amount of the diseased or injured condition. Now, the operations of surgery were formerly regarded as purely anatomical performances. The "system of operative surgery, founded on the basis of anatomy," by Sir Charles Bell, was a type of that period. Yet the surgeon is never called upon to touch the body in its healthy anatomical conditions. It is only under the circumstances of disease or injury, and as seen during life—in other words, where there are pathological conditions superadded to anatomy—that the operating surgeon interferes. The association of pathology with healthy and dead anatomy constitutes surgical anatomy properly so called, which is thus modified throughout by constant combination with morbid and living conditions in the performance of any operation. It is this knowledge which can alone correct the purely anatomical impressions of the student, and safely guide the operating surgeon. Thus, the various parts of the body, as seen in the dissecting-room, have undergone alterations of colour, consistence, elasticity, size, shape, situation, position, and relation, as presented to the surgeon, when modified by the conditions of disease and life combined.

There was yet a consummation to be reached in the modern practice of surgery which should confer on it the title of the most beneficent, as well as having the rank of a scientific art. To abolish the pain we should otherwise be compelled to inflict, to lay our patient for a time as if in death, while the bodily organism, under surgical operation, is being repaired from the ravages of disease or the mutilations of injury, and thus refitted for the enjoyment of life, is not this to have a privilege entrusted to us unknown in the exercise of any other art, for do we not then become the ministers of an immeasurable exemption from human suffering? *Anæsthesia*, or the state of insensibility induced by the administration of various agents, has completed the change of scene which surgical operations formerly presented. The old operators—ignorant often of anatomy, and always of pathology—are described as "agitated, trembling, miserable, hesitating in the midst of difficulties, turning round to their friends for that support which should come from within, feeling in the wound for things which they did not understand, holding consultations amid the cries of the patient, or even retiring to consult about his case, while he lay bleeding, in great pain and awful expectation." Nowadays, this picture is commonly reversed: see the calm composure of the surgeon and the placid sleep of the patient.

Lastly, however, to know our gains from observation, whether in the science or art of surgery, we must count them. The impressions of experience, respecting pathology and treatment, are too vague and indistinct for any trustworthy conclusions. Accuracy of observation is essential to reliable results; and the number of observations taken is also a very important consideration. Hence the value of the numerical method of inquiry, or *statistics*; which, by the process of counting, imposes a rigid check upon dissimilarity of the facts thus enumerated by units, and estimates their evidential significance by their number, absolute, or relative to other series of facts with which they may be compared and weighed.

A few words further, allow me, as to the functions of the Medical Society of London. Men who, for the most part, are actively engaged in the practice of medicine and surgery have hardly the remaining energy and time requisite for the service of science in any form that is removed from their daily pursuits, however much their own sympathies and tastes may lead them to court the indulgence of her smile. Passing by the wayside, we are only just permitted to glance at her graceful figure, and perhaps to sip from the hollow of her hand a mouthful or two of the limpid stream which flows from her crystal fountain. Yet, in our ranks, there have not been wanting those who have strayed out of the beaten track to explore the riches of the temple where this presiding goddess dwells. Look back for a moment, and you there see some at least of our associates, past and present: Edward Jenner, Marshall Hall, John Bishop, John Hilton, Golding Bird, Owen Rees, Garrod, Glover, Sibson, Guy, Lankester, Richardson, Crisp, Pavy, Thudichum—men who have won for themselves imperishable names in the deathless cause of science. And, as practitioners, pathology is so inseparably connected with our avocations, that many more, too numerous to mention, have thence contributed to the science of surgery. The special function, however, of this Society is its practical work—in the clinical study of disease, and its treatment. Here the names of our workers bristle up so thick that to attempt to enumerate them more particularly than I have already done incidentally would be to write a full history of the Medical Society of London.

There is yet another feature which is almost peculiar to our Society—I mean its *social* character. In other Societies I think it may be said that the members remain more as individual units rather than become incorporated into that intimate personal association which makes us feel that we are "members one of another." Perhaps this unification results, partly, from the freedom of intercourse we enjoy in our large social gatherings during the year, as we are about to experience on the present occasion.

THERAPEUTIC NOTES ON CHLORAL.

BY JOHN BARCLAY, M.D., C.M.

I WOULD briefly record my experience of chloral hydrate in croup, insanity, delirium tremens, epilepsy, and asthma; and also draw attention to a special peculiarity which I have observed with regard to its action when combined with iodide of potassium—namely, the remarkable power it possesses of intensifying the constitutional effect of the iodide.

Croup.—My first case was that of a child of fifteen months, who had first tonsillitis, then hoarseness, and croup supervening. During the three days after the larynx became involved the case went on like an unfavourable case of croup, from bad to worse, and at the end of that time little or no hope was entertained of recovery. Tracheotomy was proposed twice; the first time it was postponed because, just when the operation was about to be performed, some improvement took place; and then at a later period it was again proposed, but rejected as holding out next to no hope of saving the child. The distress of breathing was extreme, and more to relieve this than with any hope of ultimate benefit, I ordered two grains of chloral, with two minims of ipecacuanha wine every two, three, or four hours, according to the effect produced. Ipecacuanha wine alone had been given before. Besides these sherry was given freely. I watched the case carefully and closely all along, and these were the observations I made. Before the chloral was given the respirations were from 60 to 70 per minute, and the pulse varying from 144 to 156, and weak; the dyspnœa was extreme, and the voice and cough now close and dry. Within two hours after the first dose great relief in the breathing was observed, the child slept for half-an-hour at a time, the respirations and the pulse fell a little, and, what was more curious, a very copious exudation of mucus began in the larynx and trachea. Indeed, so great did this become that it was necessary to raise the child every half hour, when a little water or sherry was given to produce a cough, by which the air-passages were cleared of the mucus. Had the child been allowed to lie it would soon have been suffocated, for after the chloral was given and the exudation had commenced, there was not the slightest inclination to cough. Gradually the pulse fell, and the respiration became slower, till at the end of twenty-four hours the former was only 108, and the latter 30. This treatment was persevered in for forty-eight hours, after which milk and sherry only were given. The recovery was slow but steady.

The next case was likewise one of inflammatory croup in a child of four years. There had been hoarseness and croupy cough for two days before I saw him. I ordered chloral in four-grain doses, with four minims of ipecacuanha wine, every four or six hours, and nothing else in the way of medicine. In two days the hoarseness and croupy cough had disappeared, the symptoms of improvement being the same as in the former case—namely, quiet sleep, exudation of mucus, and decrease of fever.

During the past two years I have treated several other severe cases of croup with the chloral and ipecacuanha, and have not been disappointed with the result. In all of them I have made it my first object to obtain a quiet sleep, and on the child awaking I have almost always found some decided improvement.

Insanity.—I have in private practice treated seven cases of insanity with chloral as the hypnotic. Five were females and two males. All had insomnia as a prominent symptom for some weeks previous to the manifestation of delusions and illusions, and in none of them did the chloral fail to produce sleep. All were severe cases, one of them during a previous attack having been in an asylum for many months. Half-drachm doses were given every night, usually with the effect of producing ten or twelve hours' sleep; and sometimes the same quantity was given in the morning also, when the patient was much excited. Indeed one of them, a lady, was kept asleep almost continuously for a whole week. In neither of the patients, however, did any sign of returning reason appear before the end of about three weeks, and in some of them it was much longer, though they all gradually became more quiet and more easily managed after eight days. I certainly agree with Dr. Campbell, of Garland Asylum, Carlisle, in thinking that chloral in these cases is much to be preferred as a hypnotic to hyoscyamus, bromide of potassium, and I may add morphia, as being a much more certain sleep-producer than either of these. In the most severe case of the seven, that of a lady, the excitement was so great, however, that I was first obliged to inject a full dose of morphia hypodermically, which lessened her power of resistance and rendered it possible to administer the chloral.

Delirium tremens.—I was called late one night to see a young man who was labouring under this complaint. He had attempted to hang himself, had been rescued, and was then very violent. About half an hour before I saw him he had got half a drachm of solution of morphia, which seemed to have no quieting effect whatever. I then injected hypodermically half a grain of morphia, and waited an hour; but at the end of that time he was still as violent as ever. I then injected half a grain more, and waited for two hours; but even then the violence was, I think, if anything, greater than before. I now sent for a drachm of chloral in solution, half of which I gave him. In ten minutes he was fast asleep, and he slept for ten hours. When he awoke he was slightly collected; he was well fed with strong soup and arrowroot, got the rest of his chloral draught, fell asleep again, and in twelve hours more awoke almost rational.

Epilepsy.—I have treated three epileptics, all females, with chloral. The first, a girl about eighteen years of age, came to me in June, 1870, to be treated for epilepsy. She had had fits from infancy, and had been treated perseveringly by many medical men. She was dysmenorrhœal. Believing that she had taken all the orthodox remedies for epilepsy before, I ordered ten grains of chloral three times a day. Before beginning to take the chloral she had a fit every day, and occasionally two daily; but after being put upon it she had only two fits during the next three months. At the end of that time she ceased to take the chloral, and the fits returned. After a little she resumed the medicine, and during the time she was in my neighbourhood (about two months) she had no fit. I have since heard, however, that, having given up the chloral, the fits returned as frequently as they did before she took the medicine.

The second case was that of a girl, sixteen years of age, who had had epilepsy from infancy. Upon an average she had two fits every week. Nothing had been done in the way of trying to cure her. In May, 1871, I ordered eight grains of chloral three times a day, which she continued to take for six weeks. It is now upwards of a year since she began to take the medicine. I saw her this day (July 8th, 1872); and her mother informed me that she had two fits during the first week in which she took the medicine, but none after.

The last case was that of a woman, unmarried, and thirty-seven years of age, who had begun to take fits when about twenty. She had been treated in several of the London hospitals, and by many medical men throughout the kingdom; but nothing in the way of treatment ever did her the slightest good. When I saw her she was taking fits four or five times in the twenty-four hours, her memory was almost entirely gone, and she was rapidly becoming imbecile. Not hoping for much success, I ordered chloral in ten-grain doses three times a day; and the effect was that she had no fit for a week. At the end of that time she had a very severe one. Two days after this she had another, during which she had fallen out of bed. She was found lying by the side of the bed dead.

These three cases would seem to show that chloral does possess some power over epilepsy; but whether this be confirmed by more extended experience remains to be seen. Possibly a combination of chloral with bromide of potassium might be followed by more permanent results, especially if, which is not improbable, chloral be found to have the same intensifying effect on the action of the bromide that it has on that of the iodide of potassium.

Asthma.—I have tried chloral in a few cases of spasmodic asthma; and though it acted rapidly and beneficially in two or three attacks in each person, it soon ceased to have any effect whatever, even when the dose was very much increased. I have one patient who obtains *some* relief from a drachm dose repeated in an hour; and she says she finds most relief from first swallowing the large dose of chloral, and then breathing nitrite of amyl deeply. Upon the whole I think it is nearly a failure in asthma.

I now come to *the influence which chloral exerts upon the action of iodide of potassium.* From the middle of February to this date I find I have prescribed these two medicines in combination for fifteen patients; and it will be seen that of these ten were affected with iodism by the first or second dose of the mixture. The five who presented no symptom of iodism were three children, respectively seven, eight, and nine years of age; and two men, the one sixty-five and the other sixty-seven.

1. — Feb. 17th, 1872: J. M——, clergyman, aged thirty-five, after perspiring freely, was seized with a rigor, which was followed by acute pain in the lumbar region and over the left side of the thorax. Pulse 96; tongue foul; urine high-coloured; no signs of pleurisy or other affection of the lungs or heart. Ordered a purge, a cataplasm, and a mixture, containing in each dose five grains of chloral and five of iodide of potassium, to be taken every four hours. The first dose so severely iodised him that I was called up during the night to see him, and he was unable to leave his bed for four days on this account alone. But no sooner did the symptoms of iodism begin than all the lumbar and thoracic pains began to disappear.

2.—April 22nd: B. D——, female, unmarried, aged thirty, was seized with a severe attack of erythema nodosum, and the pain in the spots was very great. She had the same mixture ordered for her as above, and after the first dose she was thoroughly iodised, though not so severely as Case 1. The pain of the erythema was almost entirely relieved. After this one-fourth of the original dose was sufficient to bring back the iodism.

3.—April 23rd: E. F——, aged eight, female, had great pain and swelling in both knee-joints and one elbow. Pulse quick; tongue foul; urine high-coloured. Ordered three grains of chloral and three of iodide of potassium every four hours. Pain and swelling all gone in forty-eight hours, but no iodism.

4.—April 28th: F. S——, female, aged twenty-five, complained of great pain and swelling along the lower jaw near the sockets of the molars. Ordered poultice and same mixture as in Case 1. Iodism was established on the following morning, but no relief to the pain was experienced. Suppuration ensued.

5 and 6.—April 30th: These were cases very similar to No. 3: girls respectively seven and nine years of age. No iodism was observed in either, though the three-grain doses soon cured both.

7.—May 10th: Mrs. S——, aged thirty, about a fortnight after the birth of her fourth child, was seized with con-

siderable pain and swelling of both knee-joints, both ankles and wrists. Ordered fomentations to the joints, and chloral and iodide in five-grain doses internally. Iodism was produced after the second dose; but after a day or two, all the pain and swelling had disappeared. When iodism began to subside, I again put her upon the mixture, in teaspoonfuls instead of tablespoonfuls, but the iodism returned, compelling her to give up the mixture altogether.

8.—May 13th: Mrs. S——, aged sixty-five, labours under chronic sciatica. She had had a great variety of treatment before getting the chloral and iodide. This combination produced slight but quite apparent iodism. She had, however, taken only one dose, and could not be persuaded to take another, "the feeling in the head and throat was so bad," she said. Very little relief to the sciatica was afforded.

9.—May 24th: G S——, farmer, aged sixty-five, at the close of a severe attack of cellulitis of the lower and back parts of the thigh, and when the incisions made for the relief of this were healing up, showed several irregular enlargements over the lower part of the femur in front and at the sides. Chloral and iodide in five-grain doses each were given, and continued for a week, but no iodism resulted.

10.—June 8th: Mrs. M——, aged forty-six, had acute pain and swelling in the right ankle-joint. Ordered an irritating liniment to be rubbed into the skin around the joint, and chloral and iodide internally. The latter had the effect of relieving the pain and swelling, but produced distinct though not severe iodism.

11.—June 22nd: Mrs. M——, aged thirty-seven, had for two years laboured under chronic rheumatism. She had one severe attack of the acute form a year ago, which was treated by blistering, with a very satisfactory result. The iodides of potassium and ammonium had been several times given to her in large doses, without at any time producing iodism; but now one dose of the iodide of potassium and chloral mixture produced distinct, and two doses severe iodism. She said, however, that no remedy she ever had before had done the swollen and painful joints so much good.

12.—June 23rd: Miss B——, aged thirty-four, one of a very phthisical family, had for several years complained of pain over the right ovary. Leeching, various forms of counter-irritation, and numerous remedies internally, had been at different times prescribed for her, but with a variable amount of benefit. I gave her the same chloral and iodide mixture as above, and warned her as I had warned all the patients who got it after No. 4, that she might suffer from iodism. And she did suffer considerably from it for one day. The pain was somewhat relieved. She refused to resume the medicine, even in small doses.

13.—July 2nd: J. M——, aged thirty-two, complained of acute pains in his shoulder and knee-joints. No perceptible swelling. Various things were tried with no good result. At length I gave him the iodide and chloral, which afforded relief in a few hours, but which iodised him. The medicine was omitted for one day, and then resumed in teaspoonful instead of tablespoonful doses, without again producing the symptoms of iodism.

14. — July 8th: A. B——, aged sixty-seven, has an attack of gout in both feet. Ordered iodide and chloral in five-grain doses each.—July 10th: Has continued to take the mixture every four hours with considerable relief to the pain, but no symptoms of iodism have been developed.

15.—July 13th: J. D——, brother of Case 2, aged forty-six, has great pain along the sciatic nerve, and numbness of the calf of the leg and foot. Ordered a purge of colocynth, galbanum and croton-oil pills, and afterwards iodide and chloral, the former in five-, and the latter in eight-grain doses every four hours.—July 15th: Was well purged. The first dose of the mixture was taken about 6 P.M., and by 10 P.M. distinct iodism was the result. A second dose on the following morning made the iodism severe. To reduce the dose to one-fourth.—July 18th: Has still some pain in the forehead and throat. Pain in the thigh nearly gone, but the numbness much the same as before.—July 24th: Cured.

It would appear from the above fifteen cases that all those iodised were of middle age, those unaffected being three young girls and two elderly men. Possibly there may be something else to account for the immunity those enjoyed than that derived from their youth or age, something perhaps in the nature of the complaints from which they suffered, or some peculiarity in their constitutions; but my observation and experience are as yet quite insufficient to enable me to decide as to this. I merely make known the fact that in the greater number of patients to whom I have given the combination of chloral and iodide of potassium iodism has been produced, and in whom, had the chloral been omitted, no iodism would in all likelihood have been seen. Iodism from doses of five grains of the iodide of potassium alone is very uncommon. I can remember seeing it in two cases only during the past ten years. And Lisfranc, in a hundred cases in which he prescribed the iodide in this and larger doses, saw iodism in none of them. As to whether this influence possessed by chloral over the constitutional action of iodide of potassium be found to be an advantage in therapeutics, further experience alone can determine.

Banff.

ON A CASE OF

CARIES OF THE BONES OF THE SKULL, WITH ABSCESS INSIDE THE CRANIUM.

BY WILLIAM YEATS, M.D.,
COTON-HILL INSTITUTION, STAFFORD.

H. H——, aged sixty-eight, single, was under treatment for mental disease for nineteen years. When admitted to Coton-hill Institution, twelve years ago, she was labouring under chronic mania, with delusions principally of a religious nature. She also had strange fancies regarding the adulteration of her food. Up to the time of her death these morbid fancies persisted with little variation. She never exhibited any of the signs of organic cerebral disease. Her bodily health was at best only fair, often, indeed, feeble and delicate; her appetite was always fickle, and her disposition fastidious. In the middle of the year 1871 she became debilitated, and suffered from sciatica and lumbago, which were removed under appropriate treatment and time; but her general health seemed to get feebler, her appetite worse, and she became unable to get out of doors. From about the beginning of November she averred that she had some tumour about the lower part of her body which gave her much pain; but the exact nature of it we could not ascertain, as she was hypersensitive, hysterically modest, and refused to allow an examination.

About the middle of January, 1872, matters having become much worse, as she suffered immensely when she moved, became unable to walk, and appeared to lose flesh, an examination was insisted on. A small irritable sinus was found on the left labium majus leading into an abscess of the same side capable of holding about an ounce of fluid. After enlarging the sinus, and inserting a piece of lint as a drain, the discharge ceased in the course of six weeks. During that time, while she was confined to bed, her bodily health suffered no improvement. She became hectic, and abscesses appeared on different parts of her body—e. g., on the scalp, the lumbar region of the back, the right forearm, the thumbs and fingers, and the left heel. The knee-joints and one of the ankle-joints became much distended and painful. Some of these abscesses burst, others were opened and discharged freely. Although everything was done in the way of food and stimulants to support her, she gradually became weaker. Up to the time of her death she suffered much pain in the knees, especially the right one, which she became unable to move through pain. Opiates and chloric ether were freely given to allay the suffering and procure sleep. Often, too, she complained of severe pain in her head, in the frontal and temporal regions, which at different times was relieved by small blisters behind the ears. None of the abscesses gave her any pain until the cutis became very tense and inflamed; those on the scalp neither burst nor were opened, nor did they give any pain. Mentally no new feature was observed. She talked rationally, still retained her former eccentricities, became somewhat childish, and, occasionally, some days before death, she became unconscious and rambled in her talk. This last condition,

which persisted for a quarter or half an hour at a time, seemed to arise from imperfect brain nutrition, as on several occasions she almost immediately rallied on the exhibition of some brandy and warm water. Thoroughly exhausted and worn out, she expired quietly on the 28th of June, 1872.

At the post-mortem examination, held thirty-six hours after death, the following appearances were revealed:—On removing the scalp, an abscess, containing about three ounces of greenish-yellow thick pus, was laid open. The soft parts were entirely dissected off the parietal bone where the abscess was situated, and the bone was bare and rough to the touch. Over the occipital bone there was another abscess of less dimensions, and of the same nature; the bone, however, was very little denuded. On sawing through the occipital bone, nearly two ounces of thick greenish-yellow pus ran out from the inside of the skull. On removing from the head the part of the cranium that had been sawn through, the dura mater was found to be very adherent to the bones wherever it was attached, but it was quite free and unattached in those parts corresponding to the middle and back part of the longitudinal sinus, and about half an inch on each side of the sinus in the parietal region; while in the occipital region, down to the torcular Herophili, it was unattached for about an inch or more on each side of the groove of the sinus. Its attachment to the upper surface of the greater wings of the sphenoid also was slender. In the occipital region, between the bone and dura mater, there was an abscess capable of containing about two ounces of pus, which pressed on the brain. It was this abscess which was opened when the bone was sawn through. On washing off the pus, the membrane was observed to be in some parts thinned, while in other parts, and more generally, it was thickened by granular fibrinous deposits. It may be here mentioned that several of the vessels, more especially the posterior branches of the middle meningeal arteries, were occluded in some parts of their course by cartilaginous degeneration of their walls. The dura mater had to be removed with the scalpel, as the parietal and visceral layers of the arachnoid were thickened and partially adherent. The bones of the cranium, with the exception of the temporals and ethmoid, were more or less affected with caries. The frontal bones, quite distinct from each other by the frontal suture, presented the disease, though in a less degree than the others to be mentioned. On looking at them from the internal aspect by transmitted light, large, dark, congested patches, with well-defined edges, were well seen, and small particles of bone, of a dead-white appearance, were present in the centres of the patches. The Pacchionian fossæ on each side of the frontal suture were carious, the perforations being very circumscribed, but deep. Those parts corresponding to the groove of the longitudinal sinus were congested and superficially decayed, and covered by a thick, reddish-looking (when fresh) adventitious membrane. The larger congested patches on these bones seem to have been formed by an aggregation of smaller ones. The outer surface of the left frontal bone presented a large circular patch about three inches in diameter, quite livid in its outer third all round, and pale and exsanguine in the centre, where there was a circular carious spot about a quarter of an inch in diameter, extending down to the inner table. Both parietal bones presented the disease in a much greater degree, being affected in almost their entire extent. On them large congested patches were seen, both by reflected and transmitted light. Upon the inner surface of the left parietal an irregularly oval patch measured four inches in its longer diameter, and two and three-quarter inches in its shorter, in the centre of which, corresponding to the parietal protuberance, the inner table was carious for about one inch in diameter; while on the external surface caries extended from the coronal suture in front to within an inch of the lambdoidal suture behind, and vertically one inch and a half along that distance. In the centre of the caries over the parietal eminence there were some perforations like pin-holes. The caries on the external surface of the left parietal bone corresponded with one of the abscesses in the scalp already mentioned. The right parietal presented the disease in its first or congested stage in a large extent, with only a small carious portion on the inner table on the inner surface of the eminence embracing the groove of one of the vessels. Externally, there existed a circular carious spot, about a quarter of an inch in diameter, extending through the outer and part of the vitreous table, situated in the centre of a well-defined circular congested patch, which measured one inch and a half in diameter, and extended over the coronal suture to the frontal bone. This patch was best seen from the inner surface. It may be here remarked, that the disease was more advanced in those situations corresponding to the terminations of the furrows; and, further, that on the left parietal, where the disease was more advanced, the arterial furrows were only slightly marked, and seemed almost filled up, especially towards their extremities. On the right parietal the caries on the inner surface was situated over one of the partially obliterated furrows, which, generally, were also less marked than usual. In both parietals there was well-marked congestion of the osseous structure along the course of the arterial furrows. This condition of the furrows and the contiguous portions of the bones agreed with the degenerated state of the vessels in the dura mater. The occipital bone in that portion above the groove of the transverse sinus presented a more advanced state of caries than any of the other bones. The inner table was quite carious from the groove of the transverse sinus upwards for about three inches, the caries being continued into the parietal bones. The groove for the longitudinal sinus was the centre of the disease, which extended an inch on each side of it. At the superior angle of the bone there was a sequestrum, measuring one inch from side to side, and half an inch vertically, extending through the inner and part of the outer table. The sequestrum was spongy, friable, and quite loose. In connexion with it was the abscess, already mentioned, between the bone and dura mater. The bone was not carious externally, therefore the abscess mentioned as existing in the scalp in that situation did not depend on caries of that surface; but there was a circular aperture, one-eighth of an inch in diameter, communicating with the sequestrum through the external table, by which the pus had travelled from the abscess inside the skull to the outside, and, pushing the pericranium before it, had formed a sort of auxiliary cavity outside the cranium. The upper surfaces of the great wings of the sphenoid were also carious superficially. The brain itself was anæmic, and generally softened. The arachnoid and ventricular fluids were in excess. No tubercles were present on the arachnoid, pia mater, or on the walls of the ventricles. The carotid, basilar, and cerebral arteries were the subjects of atheromatous and calcareous degeneration, but not to a great extent. The heart was small and fatty, the lungs were healthy, the liver was large and fatty, and both kidneys were small and congested. There was extensive calcareous degeneration of the walls of the aorta and iliacs.

In this case the symptoms did not betray, in any significant degree, the large extent of disease that existed in the cranial bones. The pain in the head resembled an ordinary hemicrania, while no pain was felt in the back of the head where the disease was more advanced. The abscesses in the scalp and in the other parts of the body were supposed, during life, to be dependent on the absorption of matter from the abscess in the labium; but from post-mortem appearances I think it may be safely inferred that the affection of the cranial bones preceded the abscesses in the labium and other parts of the body; and, furthermore, that the latter affections resulted from an absorption of matter from the cranial disease. From the pathological data, the disease of the bones can only be ascribed to the degenerated state of the nutrient vessels. The case is also interesting physiologically, as affording evidence relative to the amount of pressure the brain-substance may bear without any appreciable symptoms being produced. It has long been known that even a large part of one cerebral hemisphere may be destroyed where no obvious symptoms result, but the exact locality affected must be taken into account. In this case there must have been considerable pressure on the posterior lobes of the brain from the abscess between the occipital bone and dura mater, evidenced by a decided hollow on the right posterior cerebral lobe. As it has been authoritatively asserted that the posterior lobes are the parts concerned in the highest intellectual operations, it is noticeable that in this case no recognisable intellectual deterioration took place. To be sure, the patient presented morbid mental symptoms, but they had been present nearly a fourth part of her lifetime, and seemed in no way altered or intensified by the results of the cranial disease,

the commencement of which must have been of a comparatively recent date, whilst there was no perversion of common sensation or motion attributable to cerebral influence.

It is no doubt true that, had the same amount of pressure been suddenly produced, the brain was bound to respond in a manner indicative of a crippled condition; but here the compression took place gradually and very slowly, so that the brain, which was but little exercised, and being but in the least degree compressed at first, gradually became used to the increased pressure.

Coton-hill, Stafford.

A CASE OF PULMONARY EMBOLISM.

By J. P. ATKINSON, M.D.

M. W——, aged thirty-five, wife of a farmer in easy circumstances, eight months advanced in her first pregnancy, had enjoyed uninterrupted good health. During her pregnancy the same state continued, except that in the eighth month she had occasional attacks of sickness after supper, and also very severe attacks of headache of brief duration. On the 26th of March she went to bed, feeling as usual; but about 4 A.M. of the 27th she had a violent attack of sickness, and immediately afterwards she fainted and her husband thought she would have died outright. On my arrival (a distance of eight miles from my house) I found her suffering from the most urgent dyspnœa, which had come on immediately after the attack of syncope. The respirations were 75; the pulse was so rapid and so small that it could with difficulty be felt and I could not count it; the countenance was expressive of the greatest anxiety, with a good deal of lividity; extremities and surface cold; intellect clear. On auscultation of heart and lungs I could detect nothing to account for the dyspnœa, and, taking into consideration the act of vomiting immediately before the attack, the suddenness with which the symptoms came on, and as there was also a good deal of œdema of the lower extremities, I came to the conclusion that a clot had been set loose and was plugging up one of the pulmonary vessels. I prescribed a mixture containing spirit of sulphuric ether with spirit of chloroform, bottles of hot water to the extremities, &c. At 1.30 P.M. I saw her again, and found that she had rallied considerably: there was a return of warmth to the surface, the pulse was firmer, and the dyspnœa was scarcely so intense. She then complained of pain in the abdomen, recurring at intervals, and, upon making an examination, I found the os uteri steadily dilating. About 3 30 there was a return of the prostration, which increased until it became a state of complete collapse, with total suspension of all uterine action, coldness of surface, and most intense dyspnœa. Notwithstanding the famous protest against stimulants, I administered them with a very free hand, and without any after ill effects. About 9 P.M. I had the satisfaction of finding that the uterus was beginning to contract again, with returning warmth to the surface and a better pulse, and at 10 30 she gave birth to a still-born child. There was scarcely any loss.

March 28th.—She has passed a fairly comfortable night, but dyspnœa is still urgent and the pulse 130. In the evening the symptoms continued the same, but the night was passed without sleep, the breathing being so laborious and rapid; there was also a return of the collapse.

29th.—A cough, which was troublesome, had come on, with expectoration of sanguineous sputa, and there was pain and oppression about the cardiac region. Upon examination I could detect a bruit, but, owing to the noisy state of the respiration, I could do no more than suspect it to be pericardial. The pulse and respiration continue the same; the renal and alvine secretions are satisfactory; the patient takes nourishment freely. In the evening I was told she had had another return of the alarming symptoms, which lasted about two hours, but she was then somewhat better even than she was at my morning visit.

At 6 A.M. on the 30th I was sent for, the patient having had another return of the collapse, which, however, had passed off before I reached the house. I felt satisfied that she was improving. I met Dr. Giles of Oxford in consultation shortly afterwards. The respirations were then about 75, and the pulse 130; cough more troublesome. Dr. Giles detected dulness and crepitation at the base of the left lung, which we regarded as of a passive character. Linseed poultices were applied to the chest, the same mixture repeated, and plenty of nourishment ordered.

The patient continued in the same state for the next three days, each day having an increase in the more distressing symptoms, but the attack not lasting so long. On the 2nd of April the right lung became involved, and the breathing was more laborious. The following day she had a tendency to delirium, and at my visit she was just rallying from another attack of prostration; cough very troublesome; expectoration viscid and sanguineous; the inflammatory mischief was extending. A blister was applied, and I added some aromatic spirit of ammonia, tincture of squills, and ipecacuanha wine to the mixture.

On the 6th of April the respirations had fallen to 55; the pulse was 120; cough still very troublesome; was slightly perspiring, and unable to sleep. I gave her at night fifteen grains of chloral hydrate, which produced several hours of refreshing sleep, and in three more days the respirations had fallen to 40. From this time the patient improved steadily up to the 2nd of May, when, as her recovery was then complete, I ceased my attendance.

Bampton, Oxon.

OBSCURE UTERINE DISEASE.

By EDWARD CLAYTON LING, M.R.C.S., L.S.A.

THE following case is, I believe, one of rare occurrence, and of sufficient interest to warrant its publication.

M. A. P——, aged twenty-six, married, came under my observation for the first time on January 23rd. Her previous history, as obtained from her friends, is as follows:—She acted as cook in different families until twenty years of age, and, although never strong, always enjoyed fair health. At twenty she married, and at twenty-one was delivered prematurely of a child (seven months), which died soon after birth. Between that time and last September (an interval of five years) she miscarried on three occasions, the last time being in July, 1871. At each miscarriage she suffered from severe hæmorrhage, and twice her life was despaired of by her friends. In September she again became pregnant. From the commencement of pregnancy until death she complained to her friends of constant chilliness, never being able to keep herself warm, and of suffering from occasional attacks of faintness; for which, however, she did not seek medical advice. Her appetite remained good, and she slept well. Whilst turning in bed during the night of January 19th she felt something snap in her body, causing considerable pain; and at intervals during the following day she complained loudly of pain (which she referred to the epigastric region), followed by faintness. This condition continued more or less, with long intervals of relief, until the night of the 22nd, which she passed well; and on the morning of the 23rd performed her household work as usual without complaining. At noon she made a hearty meal, and *immediately* afterwards was seized with agonising abdominal pains, followed by intense syncope. At this time I was sent for. On my arrival, I found her in a state of collapse, with a cold clammy skin, glazed eyes, slow heavy breathing, and weak fluttering pulse. Under very energetic stimulant treatment she revived, but was immediately seized with a return of the pain (still referred to the epigastrium, though the whole abdomen was exquisitely tender), and vomited; this was followed by a return of the collapse. She was evidently suffering from internal abdominal hæmorrhage, but the exact seat could not be determined. The uterus felt, when placing the hand over its seat, as it usually does when about four months pregnant; but manipulation caused such excessive pain over the entire abdomen that it could not be much resorted to. The uterus remained perfectly soft during the pains. A digital examination per vaginam disclosed a normal state. No lumbar pains were complained of. Pain and collapse continued to alternate for twelve hours, when she expired.

Autopsy.—The body was well nourished, and without any external marks of violence to account for existing state. The skin was extremely white and clear. (The examination was made eighteen hours after death.) On making the usual incision through the abdominal parietes, the following appearances presented:—The epigastric, umbilical, hypochondriac, and lumbar regions were perfectly normal, and the peritoneal covering was quite healthy, not being the least inflamed. In the hypogastric and inguinal regions, immediately beneath the parietal peritoneum, a large flat clot was lying, reaching completely across the abdomen; this clot was perfectly free, not adhering to any structure, and was easily removed. The abdominal cavity was filled with liquid blood, three pints being mopped out with a sponge and much more remaining. Upon removal of the clot, the placenta was disclosed with its attached surface presenting upwards in precisely the position it would take if adhering normally to the fundus of the uterus. Between the edge of the placenta and the jagged edge of the uterus anteriorly the membranes were bulging, and, by the light of a candle, the fœtus could be seen lying in the usual position for a breech presentation. Posteriorly the placenta was adherent by a strip about two inches long and one-eighth of an inch in depth. The membranes were accidentally ruptured, when the fœtus was easily lifted from out the uterine cavity without causing any further laceration of its walls. The uterus and its attachments were then removed, with a small portion of the vagina, and separately examined. A large hole existed at the fundus—not merely a laceration, but a complete loss of structure, round in shape, four inches in diameter, and almost corresponding to the size of the placenta; the edges of the wound were jagged, but the substance of the uterus was firm and unyielding. The ora internum and externum were closely sealed. The placenta felt firm and appeared sound, though rather bulky in proportion to the fœtus. There was about the uterus a peculiarity worthy of remark—namely, a total deficiency upon the left side of the ovary, Fallopian tube, and ligaments, this side being perfectly free, and the muscular structure smoothly covered by peritoneum throughout. The ovary on the right side was well developed, showing several scars, and three Graafian vesicles in various stages of development, one being large, bulging, clear, and of a pink colour. The Fallopian tube and its fimbriæ were also proportionately large.

I sent specimens of both uterus and placenta, cut off from their free edges, to Mr. Arnott, of St. Thomas's Hospital, who kindly examined them for me microscopically, and gave the following report:—"The placenta seems to be perfectly normal. The uterine tissue is also generally healthy-looking, but in some parts there are only spoilt-looking granular remains of the muscular structure with extravasated blood: suggesting an injury and subsequent local metritis; or an inflammatory condition producing softening of the tissue and subsequent rupture, with extravasation of blood into the muscular tissue."

Saxmundham, Suffolk.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam alioram, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF SEPARATION OF THE PELVIC SYNCHONDROSES, WITH RUPTURE OF THE URETHRA.

(Under the care of Mr. POLLOCK.)

G. H——, aged thirty-four, a porter, was admitted on Aug. 6th, 1872. He had been struck by the driving-rod of a steam-engine, being caught between it and the platform. The rod struck him from above downwards on the left buttock, and forced the pubes against the platform. When admitted he was much collapsed; there was severe bruising over the left buttock and ilium and over the hypogastric region; he could not pass urine, and an attempt to pass a catheter revealed a rupture of the urethra just in front of the pubic arch. Mr. Pollock therefore cut down upon the urethra in the perineum, and, on introducing the finger into the wound, a separation of the symphysis pubis could be felt, the urethra being torn downwards from the pubic arch. A catheter was passed into the bladder and secured there, and a dose of opium was given. He did not suffer much pain after the operation, but the pulse kept up to 120, and bruising came out over a large area of the hypogastrium and thighs. On the left thigh and groin the skin assumed a dusky-red tinge after a few days, and the left lower limb became œdematous. The abdomen was tympanitic, but not tender. The bowels were unloaded by an enema, and the opium was continued. On the 15th there was a severe hæmorrhage from the urethra; the patient had an emaciated and anxious expression, and was restless and delirious; the pulse 128. The catheter was removed, and urine flowed freely by the perineal opening. The lower limb had now become very œdematous; the abdomen continued very tympanitic; he remained low and wandering, and then gradually sank, death taking place on Aug. 20th.

Post-mortem examination.—The lips and surface of the body were anæmic. The left leg was œdematous, and the skin on the inner side of the thigh to the extent of its upper two-thirds was black and sloughing. There was an incision in the perineum, in the median line, an inch and a half in length. The tissues on the front and inner side of the left thigh were matted together in a dark gangrenous mass. The symphysis pubis was separated to the extent of more than an inch, the left pubic bone being displaced outwards to the extent of an inch and backwards to the extent of three-quarters of an inch. The subpubic ligament was torn downwards from the arch. The right sacro-iliac synchondrosis was separated a quarter of an inch, but not otherwise altered in position. The left sacro-iliac synchondrosis was also separated, and the ilium was displaced backwards three-quarters of an inch. From the anterior surface both of the sacrum and ilium, in the immediate neighbourhood of the synchondrosis, two small thin plates of bone were torn off, and were adhering by their periosteum to the cartilage. There were very firm and extensive pleural adhesions on both sides; both lungs œdematous. Heart natural. Abdominal organs natural. The bladder contained a black clot of blood weighing two ounces. The mucous membrane was congested, and presented some minute points of ecchymosis. The urethra directly below the pubic arch was lacerated to the extent of an inch on the right side, and the rent was surrounded by a foul abscess, and with diffuse foul suppuration of the cellular tissue between the anterior surface and sides of the bladder and pelvis.

ST. THOMAS'S HOSPITAL.

ACUTE EMPYEMA; THROMBOSIS OF JUGULAR VEIN AND CEREBRAL SINUSES; DEATH.

(Under the care of Dr. BRISTOWE.)

FOR the notes of the subjoined case we are indebted to Mr. B. Addy, house-physician.

E. N——, aged sixteen, was admitted into Christian ward on June 17th. He was taken ill on the 15th, with headache, sickness, and pain in the left side and in his "bones." When admitted, there were the physical signs of fluid in the left pleural cavity. Temperature 105·2° F.; pulse 148; respiration 40.

June 19th.—Temperature 102·6°; pulse 120; respiration 40. Heart almost wholly to the right of the sternum; sounds healthy. Left side of chest motionless, and dull all over except at the apex, where the percussion-note is high-pitched; breath-sounds scarcely audible except at the apex and along the spine; vocal fremitus absent. Some ægophony along the spine; no crepitation, friction, or tubular breathing. Right side healthy, and measures 14 inches, left side 14¾ inches. To continue the mixture ordered on admission, consisting of carbonate and acetate of ammonia, and nitrous ether; to have beef-tea, milk diet, and brandy.

Paracentesis was performed, and eighteen ounces of purulent fluid withdrawn; after which the patient's condition improved.

20th.—Temperature 100·5°; pulse feeble, 100.

21st.—Temperature 99·4°; pulse stronger.

22nd.—Has been delirious every night since admission. Heart still beats to the right of the sternum. Left chest hyper-resonant in front; breath-sounds feeble and somewhat blowing; some subcrepitation at the base; no metallic sounds. Patient sensible, but dull. Temperature 99·1°; pulse 100; respiration 24.

24th.—Seems a little better; tongue cleaning; temperature 100°.

25th.—At 1.30 A.M. had a convulsion, which passed off before the house-physician could reach him; but in a few minutes had another convulsion, in which the head was retracted, right arm and leg violently convulsed, while the left arm and leg were motionless, and when raised dropped like a dead weight. Face not affected; pupils dilated, but reacted slowly to light. During the twitchings the right arm was bent at a right angle, the hand presenting the appearance of "wrist drop," and the fingers bent upon the palms. This lasted about half an hour, when the twitchings ceased, the patient being unconscious.—2.30 A.M.: More conscious; moves the left arm and leg quite well; but now there is some weakness in the right extremities. After this there were two or three more slight convulsions.—10 A.M.: Temperature 104·2°; pulse 140. Tracheal râles; breathing accompanied by groaning; frequent twitchings of the head, body, and limbs. Pupils dilated, equal, and reacting to light.—2.45 P.M.: Temperature 104·2°; left pupil dilated; tracheal râles.—6.40 P.M.: Died.

Autopsy, twenty hours after death. (Notes by Dr. Payne.)—Before opening the thorax it was ascertained that the left pleural cavity contained air. The left pleura contained about twenty-two ounces of thick pus. Both visceral and parietal walls inflamed, and covered by a layer of lymph. Right pleura healthy. Left lung collapsed; no sign of hepatisation. The right lung distended, crepitant, and natural. A small branch of the pulmonary artery contained a mottled clot of some standing; but the corresponding portion of lung-tissue was not affected. Heart natural, but so displaced that its left boundary was the middle line of the sternum. The dura mater was injected. The small veins entering the longitudinal sinus and the sinus itself were filled with a rather firm coagulum, somewhat mottled, and probably some days old. The clot extended all through this sinus, and also into the descending and lateral sinuses of the left side, but not of the right; thence into the left jugular, which was quite filled; and thence into the innominate. All this clot was undoubtedly old. On the other hand, the subclavian vein was filled with soft black clot, evidently more recent, and yet not post-mortem.

ST. BARTHOLOMEW'S HOSPITAL.

DISEASE OF THE FEMUR; AMPUTATION AT THE HIP-JOINT; RECOVERY.

(Under the care of Mr. MORRANT BAKER.)

THE following case is of considerable interest, inasmuch as it is one of necrosis of the shaft of a large bone occurring without any suppuration whatever. The history pointed to a malignant affection, but a most careful examination of the bone after removal failed to detect such a condition, and showed without doubt a necrosis. For the notes of the case we are indebted to Mr. Parnell, house-surgeon.

J. B——, aged twenty-two, a thin, emaciated young man, was admitted into the hospital on August 13th, with disease of the left femur. The history is as follows:—Ten weeks before admission he went to bed quite well, but on waking in the morning he felt great pain in his left thigh; on the next day he noticed that the thigh was swollen. This went on increasing for six weeks, when, as the patient was walking in his room, the bone broke spontaneously, and he fell down; and since then he has been unable to walk. On admission the left thigh was greatly swollen, the swelling being due to increased thickness of the bone. At about the middle third the bone was angularly curved, the prominence being outwards and forwards; and there was an inch and a half of shortening.

The case being diagnosed as malignant disease, amputation at the hip-joint was performed on August 15th. Chloroform being administered, an abdominal tourniquet was applied over the lower part of the aorta. Antero-posterior flaps were then made by transfixion, the posterior flap being several inches longer than the anterior one. The femoral vessels were compressed by an assistant seizing the anterior flap as the knife cut outwards. There was very little blood lost, but many ligatures were necessary to secure the bleeding vessels. The surfaces of the flaps being washed with a carbolic acid solution, the wound was brought together by wire sutures, the ends of the ligatures hanging out at the extremity of the wound. Lastly, a large pad of lint soaked in carbolised olive oil was placed over the stump, which was then supported by means of a bandage.

On inspection of the removed limb, the muscles surrounding the bone were pale and appeared to be extensively infiltrated; the bone was thickened through the greater part of its extent, but markedly so at and below the seat of fracture, which was at the upper part of the middle third. On longitudinal section of the bone, the well-defined compact portion was seen to be surrounded by a firm casing, about a quarter of an inch thick; here and there, however, the continuity of the compact tissue was interrupted. On a more careful examination made subsequently, it was found that the shaft of the bone was necrosed, and not the seat of malignant infiltration, as was at first supposed, and that the casing was made up of lymph thrown out by the periosteum and surrounding soft tissues.

Shortly after the operation the patient was ordered fifteen drops of tincture of opium, with some brandy. In seven hours the temperature had gone up from 98·4° F. to 100°. On the day of the operation, and for the next two days, the patient was troubled with retching and vomiting.

Aug. 17th.—The wound was dressed for the first time. Temperature 101°; pulse 138.

20th.—Wound suppurating freely. Temperature 104·4°; pulse 120.

23rd.—Fifteen ligatures came away, and on the 24th five more were removed. Temperature 100·2°.

From this date the temperature gradually descended to the normal, the appetite being good throughout.

Sept. 5th.—The wound is rapidly healing; the last ligature came away to-day.

The local treatment has been throughout the thorough sluicing of the interior of the stump with weak permanganate of potash lotion twice daily, by using a rubber tube, with an elastic catheter to be introduced within the wound attached to one end, as a syphon from a basin containing the lotion.

HOMERTON FEVER HOSPITAL.

THE COLD BATH IN THE TREATMENT OF ENTERIC AND TYPHUS FEVERS.

(Under the care of Dr. ALEXANDER COLLIE.)

WE purpose giving a short account of some cases of typhus and enteric fevers treated at this hospital by the cold bath. That in some of the following cases this treatment was very useful is beyond a doubt, and in none is there any evidence that the disease was made worse by it, not even when severe lung affection co-existed. The patient in the second case seems to have been *in extremis*, and it would require very great faith in the *vis medicatrix naturæ* to believe that the patient recovered in spite of the treatment, for the beneficial effect of the bath was constant and well-marked. It is further interesting to note that in those cases which ultimately did well the immediate effects were beneficial, the temperature being lowered and sleep produced. This week we publish the notes of four of the cases, reserving the others for some future time.

Case 1 was a young woman, aged twenty-eight, admitted on October 29th, suffering from a severe attack of enteric fever complicated with bronchitis. She became convalescent on November 14th. On the 27th, however, diarrhœa came on, the respiration became hurried, and the tongue dry and fissured. On December 3rd the temperature in the rectum was 104·4° F.; pulse 132; numerous râles could be heard through both lungs; the abdomen was distended and the bowels loose, but there was no eruption. In this condition the patient was placed in a bath of a temperature of 80° F., which in fifteen minutes was lowered to 67°. In ten minutes after being put into the bath the thermometer in the rectum registered 100·4°. After being removed from the bath the patient immediately went to sleep. On

December 4th the temperature in rectum was 105°, but fell considerably after a bath of 68°, lowered to 52° in fifteen minutes. On the 5th, 6th, and 7th, baths were given. On the 8th the temperature was normal, but on the 9th it had gone up to 100·2°, and the bath was repeated, when it fell again to 98·6°. On the 10th, thirteen days after the relapse, the patient was convalescent; temperature normal. She was discharged on January 30th.

Case 2 was a young woman, aged twenty-five, admitted Dec. 5th with but slight pyrexia, but on the 10th well-marked typhus rash was present. Temperature 103·4°; pulse 160; tongue dry and brown; well-marked carphology, restlessness, and delirium. A cold bath was thought of as a means of producing sleep; but as the patient was in a state of extreme constitutional depression, it was feared that the bath might be followed by dangerous results. She was therefore ordered a pill containing half a grain of opium, and to have cold cloths applied to the head. The opium did not produce sleep, and from this time up to the 15th, probably the twelfth day of the disease, the patient exhibited subsultus, twitchings, floccitatio, deafness, and all the signs of threatening dissolution. Pulse 132, soft; temperature 100·6°. A bath was ordered of 80°, to be cooled in twenty minutes to 60°. During the bath the patient's pulse became alarmingly feeble, and stimulants were administered. In about twenty minutes after being put into the bath the temperature of the patient fell to 97·8°. After the bath three ounces of whisky and a raw egg were given, and the patient was wrapped up in a warm blanket, and soon fell asleep. By midnight the temperature had gone up to 101·4°. On the 16th (thirteenth day of disease) the temperature was 103·4°; a bath was ordered from 77° to 54°, but this time the temperature fell only one degree, but sleep followed the bath. On the 17th the temperature was 104·8°, and, notwithstanding the presence of severe bronchitis, a bath from 90° to 60° was ordered, and the temperature fell to 96·2°, and the patient slept well. On the 18th the patient was better, the nervous twitchings were less, and the bath was not repeated. On the 20th the temperature was normal. On Jan. 29th patient was discharged.

Case 3 was a married woman, aged twenty-eight, admitted Dec. 12th, who said that she had been ill ten weeks, but of what was not clear. A bath of 90° lowered to 52° in thirty minutes had the effect of bringing down the temperature from 103·2° to 100°. No immediate sleep followed the bath, but the patient slept well during the night. On the 14th the bath was repeated, and the temperature lowered, and the patient slept immediately after; and although by midnight the temperature had risen to 105°, the patient had a good night. On the morning of the 15th the temperature was 104·2°, but was lowered to 102·2° by a bath, but by midnight it had risen again to 105·4°. On the 16th the bath was not repeated, as the patient was sweating freely. On the evening of the 17th the temperature was 104·4°, but fell to 102·6° after a bath. In the evening of the 18th the temperature was 103°, but the bath was not repeated. In the morning of the 19th it was 102°. From this time to the 28th the temperature ranged about 100°, when it became normal, the patient being discharged on the 31st of January.

Case 4 was a boy, aged seventeen, admitted on Dec. 17th with enteric fever. On the 22nd, after a bath of 85° to 58°, the temperature fell from 105·2° to 102·8°, but no other good result followed. On the 23rd the temperature had risen to its former height, but as the patient objected to the bath it was not insisted on. On the 24th, however, the urgency of the symptoms suggested the bath, which was accordingly given, with the effect of lowering the temperature from 104·8° to 101·8°. The patient died sixteen hours after this bath, and at the autopsy extensive peritonitis and perforation of the bowel were discovered.

GENERAL HOSPITAL, BIRMINGHAM.

TREATMENT OF PLEURITIC EFFUSION BY DIURESIS.

(Under the care of Dr. WADE.)

IN the following case (for the notes of which we are indebted to Mr. E. Rickards, resident pathologist), pleuritic effusion had remained ten weeks, during which time various modes of treatment had been adopted for its absorption, but in vain. On admission the patient was ordered the diuretic mixture given below, and immediately the quantity of the urine was increased, and coincidently the effusion began to diminish, and rapidly disappeared. Three months before admission the patient, a boy aged thirteen, had got wet through; fifty hours after this he complained of a severe pain in the left side, which was worse on movement of any kind; he also suffered from a cough, was thirsty and hot. In a week the pain was gone, and the patient went to work, but in a fortnight he became worse, and was ordered to keep his bed. He was then freely purged, and had the left side of the chest blistered, but as he did not improve, he was sent to the hospital on June 22nd, when his temperature was 104° F., pulse 120, respiration 44; eleven ounces of urine being passed in the twelve hours. Over the left part of the chest there was absolute dulness, loss of vocal fremitus, and almost inaudible respiration. The dulness extended up to and above the clavicle and to two fingers' breadth to right of sternum. At the back the left side gave the same physical signs. On the right side the chest was healthy and breathing exaggerated. The heart was displaced to the right, the impulse not perceptible, the sounds being heard loudest on the right of the sternum. Ordered two grains of mercury pill night and morning. Also to take three times a day an ounce of the following mixture: iodide of potassium, twenty grains; citrate of lithia and bicarbonate of potash, of each two drachms; spirit of nitric ether, four drachms; infusion of digitalis, three ounces; water, to eight ounces. To rest in bed, and have the hospital milk diet.

June 24th.—Temperature 102°; pulse 100; respiration 40; urine, forty-four ounces in twenty-four hours. Dyspnœa less.

26th.—No dulness on right of sternum, nor under clavicle on the left side. Breath sounds in left infra-clavicular region more vesicular.

29th.—Dulness only extends to the left edge of sternum; percussion note over the second intercostal space good; heart sounds loudest to the left of sternum; vesicular respiration and redux friction down to the upper border of the second rib. Temperature and pulse normal; urine, sixty ounces in twenty-four hours.

July 2nd.—Heart in normal position; vesicular breathing and redux friction down to the upper border of the third rib; urine, sixty-eight ounces in twenty-four hours.

6th.—Leathery friction felt and heard over the whole of the left chest, front and back; dulness gone; vocal fremitus normal; breath sounds good.

10th.—Friction gone. The patient can walk very briskly without suffering dyspnœa.

Dr. Wade remarked that many cases of serous pleuritic effusion will yield to diuretics. Experience shows that small doses of iodide of potassium and blue pill will increase the power of diuretics and expectorants. The salts of lithia, of which the citrate is the best, will often increase the renal secretion when those of potash fail. It is well, however, to combine the two. Had diuresis failed in this case, blisters would have been tried, for in such a case a single blister may set up an absorptive action sufficient to remove the whole of the fluid. More frequently a second or third blister is required. But it will not seldom be found that the absorptive action set up by a blister, though well marked, is not continuous nor abiding. In such a case it must be repeated. It is of advantage to dress the blister with green iodide-of-mercury ointment. Blisters probably act as stimulants, or co-irritants, rather than counter-irritants; hence they should not be used in the early stages of acute pleurisy or pericarditis with a tendency to fluid effusion, which they would, under such circumstances, increase. In dry pleurisy a blister may be immediately applied if the pain be great, and a cure is at once effected. Such cases often depend on a rheumatic or syphilitic tendency. If diuresis and blisters fail, then tapping must be resorted to, care being taken to introduce the trocar at a point that has been previously ascertained to be free from adhesion.

HÔPITAL LA PITIÉ.

NOTES OF A VISIT TO THE SURGICAL WARDS OF DR. LÉON LABBÉ.

IN the course of a visit to the wards of Dr. Léon Labbé, at the Hôpital la Pitié, we noticed various interesting

cases or surgical facts, of which the following is a brief account:—

Case of Lipoma; an easy and practical means of diagnosing lipoma.—The case was one of a woman of middle age, on whose left shoulder, superficial to the deltoid, was seated a tumour of about the size of an orange. There was some difference of opinion among the visitors in regard to the nature of the growth, a few thinking it was a cyst, whilst the majority diagnosed a lipoma. Dr. Léon Labbé laid stress on an easy and practical means of making out lipoma. It consists in squeezing and gently raising the skin around the tumour. It follows that the surface, which was before quite smooth and equal, becomes slightly red, whilst the interstices between the lobules of the fatty tumour are marked out by white lines. The appearance thus afforded is quite characteristic of lipoma.

Sub-deltoid Cyst.—Near to the preceding patient was another woman who a few days before had been operated upon for a similar tumour, also situate on the left shoulder. In this case, however, the growth was seated under the deltoid. An exploring puncture had been previously made, and the tumour afterwards removed with the knife. It was a synovial sub-deltoid cyst. The patient was doing well when we saw her.

Amputation of the Thigh; dressing with cotton-wool.—This was quite a typical case of dressing with cotton-wool (now extensively employed in the Paris hospitals), and its favourable results. The patient was a girl of about sixteen or seventeen. This was the eighteenth day after the operation. The girl was almost in a dying state when amputation was decided upon. She had a white swelling in the knee, and a large abscess in the periosteum was found loosened and detached up to the middle of the thigh. Hectic fever had already set in, and the girl's strength was fast wasting away. On this, the eighteenth day of the operation, the patient looks quite well and cheerful. She has grown fat, and the cheeks are round and rosy. A large heap of cotton-wool had been applied in successive layers immediately after the operation, and strong compression exerted as usual by means of cotton-bands. The dressing had not been removed since, and will not be removed until about the thirtieth or fortieth day. As there was some slight smell a few days ago, with a little oozing of pus through the dressing, starch with carbolic acid was applied, and now there is no smell perceptible. The cotton dressing looks tight, compact, and clean. The stump may be moved about without the patient experiencing the slightest pain or inconvenience. This kind of dressing should prove useful in ambulance work during war. There has been no traumatic fever. From the day of the operation the patient rapidly recovered her appetite and gained strength.

Dr. Labbé explained a few points connected with the mode of dressing. All the arteries, large and small, must be tied. The wound is simply stuffed with cotton, which during the process of suppuration and healing is gradually and completely pushed out. Circular amputation is more convenient than the flap operation, though flaps are no impediment. The wound need not be washed with carbolic acid or any other disinfecting fluid. Large heaps of cotton-wool must be applied, and strong compression with the cotton bands is necessary.

Dr. Labbé referred to an addition which Dr. Ollier had proposed to apply to this mode of dressing, and which had turned out a complete failure—namely, the use of silicate of potash added to the bands for the purpose of fixing the dressing. The cause of failure is this: It always happens that the cotton-wool swells after twenty-four hours—becomes *tassée*, according to the French expression. The cotton-bands are, therefore, loose, and require to be tightened. This is quite impossible with the silicate of potash.

Sebaceous Cyst of the Head.—In these cases Dr. Labbé uses Vienna caustic, which he applies all over the tumour except within two or three millimetres of the base. The tumour dries up after a few days, and then falls, leaving only a white cicatrix. There is no danger of erysipelas.

Stricture and Retention of Urine; hypogastric puncture.—This was an illustrative instance of the utility of puncturing the bladder with the aspirating apparatus in stricture and retention. The day after the puncture had been made and the bladder emptied, a small bougie was introduced and gradual dilatation made, with successful results. No local effects of the puncture are perceptible.

Division of Sciatic Nerve in a youth by a bullet.—There exists paralysis of the limb and contraction of the tendo Achillis.

Enlargement of great Trochanter for eighteen years; removed by the gouge and hammer.—Guérin's cotton-wool dressing was applied with good results. The operation was performed in the latter end of January. The actual cautery has been since occasionally applied. The patient is doing well, and healing is almost complete.

Atrophy of the Deltoid after contusion of the muscle.—Electricity has until now been used in vain.

Aspirating Puncture of the Knee in a case of Hydrops Articuli.—The case was caused by a fall on the knee. The patient is a lad of about sixteen. Two punctures with the aspirating needle had already been performed without obtaining any liquid. A third puncture was performed in our presence, when about forty grammes (ten drachms) of blood were withdrawn from the joint. Dr. Labbé said he was glad he had repeated the punctures, as this quantity of blood lying in the joint would, as is always the case, have taken a long time to be absorbed, and also retarded the healing process. Compression had been employed with no effect. He referred to a similar case he had recently treated in private practice in which, after having made a small incision into the surface, he had withdrawn a large number of worm-like pieces of clotted blood. Healing had taken place rapidly.

In order to employ aspirating puncture with good results in cases of effused liquids in the knee there should be at least two or three ounces of liquid in the joint. Puncture is made without reference to the patella, and where the tumour bulges most.

Reviews and Notices of Books.

The Thanatophidia of India. Being a Description of the Venomous Snakes of the Indian Peninsula, with an Account of the Influence of their Poison on Life; and a Series of Experiments. By J. FAYRER, M.D., C.S.I., F.R.S.E., Honorary Physician to the Queen, Surgeon-Major H.M. Bengal Army, Professor of Surgery and Senior Surgeon in the Calcutta Medical College and its Hospital, Fellow of the University of Calcutta, and late President of the Asiatic Society of Bengal. London: J. and A. Churchill, New Burlington-street. 1872.

THIS is truly a magnificent work, the illustrations being upon a scale and of a character such as are very rarely seen. The illustrations are all from nature, most from life itself, and they are as beautifully executed and faithful to the originals as it is possible to conceive. They were executed at the School of Art in Calcutta. The work has been published with the concurrence of the Government, and it was just as it was about to issue from the press that the great calamity occurred which deprived England and the people of India of that Viceroy whose name will always occupy a foremost place among the great statesmen who have presided over the destinies of a vast empire. To the memory of Lord Mayo the work is dedicated. The object which Dr. Fayrer had in view was to supply a book to which anyone desirous of obtaining information on the venomous snakes of India might refer with confidence that the information was of a thoroughly reliable and trustworthy kind. Although the author has spared no pains to collect materials from all sources, and makes his acknowledgments to numerous scientific authorities in this country and in India, this work is not for a moment to be confounded with publications that are chiefly compilations. Not only has Dr. Fayrer verified by dissections and observations of his own the descriptions which he has given of the various snakes, but there is probably no man living who has undertaken such a vast number of experiments regarding the action of the poison and the effects of remedies as Dr. Fayrer.

Let us glance at the loss of life occasioned by snake-bite in India. In Bengal, including Assam and Orissa, North-West Provinces, Punjab, Oude, Central Provinces, Central India, and British Burmah, 11,416 deaths are returned from this cause; and this total cannot be regarded, Dr. Fayrer tells us, as the real mortality in these provinces. If the information were full, he thinks that more than 20,000 persons would be found to die annually in Hindostan from snake-bite alone.

Snake-poison is, our author says, essentially a neurotic, and kills by annihilating in some unknown way the nerve-force. It is also an irritant (judging from its effects on the conjunctiva), and to a certain extent a septic. There is no doubt that it has an action on the blood, but Dr. Fayrer has not been able to discover the corpuscular changes described by Professor Halford. It acts by absorption, and its effects are frequently singularly rapid, symptoms of snake-poisoning having occurred a few seconds after its introduction. It follows that in many cases there is no time for the action of any antidote even if we possessed one. As regards the poisonous snakes of India at any rate, the injection of ammonia seems to be of no avail. The rules that Dr. Fayrer lays down as to the best method of proceeding in cases of snake-bite are very good, and such as common sense and physiological knowledge would suggest as the best.

Nouveau Dictionnaire de Médecine et de Chirurgie pratiques. Tome XV. Fœtus—Génération. Avec 121 Figures. Paris: Baillière et Fils.

THE principal articles contained in the present part of this very regularly published and valuable dictionary are: 1. Fœtus, by Emile Bailly. 2. Foie (liver), by Jules Simon. 3. Folie (insanity), by Achille Foville; its Medico-legal Relations, by Tardieu. 4. Forceps, by Tarnier. 5. Fractures, by Valette. 6. Galactorrhée, by Devilliers. 7. Gale (itch), by A. Hardy. 8. Gangrène, by Raynaud. 9. Génération, by Mathias Duval. Besides these there are about half-a-dozen minor subjects.

The article on Insanity by M. Foville (fils) runs over nearly 150 pages, and the subject is treated in its general relations. He fully admits the difficulty of defining insanity, and agrees with A. de Maury in saying that "No one, speaking accurately, is perfectly healthy in mind or body. Everyone is liable to disease and to error; but when the disorder of the intellectual faculties becomes so marked that the sum of error produced is greater than that which exists in the majority of men, a lesion of the intelligence must be admitted, just as when the disorder of the economy becomes sufficiently grave to effect a notable alteration of one or several of the physical functions, the person is said to be suffering from disease." It is absurd, he thinks, to attempt to define strictly what has, in reality, no precise limits. He discusses the question as to whether the progress of civilisation has increased or diminished the number of insane people, but considers the problem too complex to permit of a positive answer in the present state of our knowledge. In uncivilised nations the struggle for existence, in civilised societies the effect of luxury, alike lead to mental disorder. He discusses the hereditary nature of insanity, and explains the widely diverging views of Parchappe, who estimated this cause as acting in 15 per cent., and of Marcé, who estimated it at 90 per cent. The frequency of insanity attains its maximum between the ages of thirty-five and forty-five. In accordance with most authors, he considers moral causes as being most powerful and frequent in their action. The abuse of alcohol stands highest in the list of physical causes. M. Foville classifies insanity into—1. Folies simples, sans lésions anatomiques specifiques, including (*a* and *b*) lypemania, general and partial; (*c*) folie à double form, ou folie circulaire, in which the mental affection is manifested by a prolonged series of states of depression and excitation; (*d*) folie instinctive, or moral insanity; (*e*) epileptic, hysteric, and choreic insanity; and (*f*) puerperal insanity. 2. Folie, with specific anatomical lesion, including general paralysis. 3. Acquired cerebral and intellectual infirmity, including dementia. 4. Congenital, intellectual, and cerebral infirmity, including idiocy, imbecility, and cretinism. As the folies simples comprehend at least half of all the cases that occur, it is obvious that the pathological aspects of mental disease open a wide field of research for future inquirers, and no classification can ever be satisfactory till this has been thoroughly worked over. The medico-legal relations of insanity are well given by M. Tardieu.

The article on the Liver by M. Jules Simon is also a long one. He treats, however, only of congestion, acute and chronic hepatitis, steatosis, amyloid degeneration, hydatid cysts, cancer, and other heterologous growths. Speaking of amyloid degeneration, he remarks: "I cannot too strongly praise sea-bathing, which has given, in our large hospital at Pas de Calais, totally unhoped-for results. We have often seen children affected with scrofulous disease and open wounds of glands or bones, in the last stage of cachexia, with voluminous liver and spleen, return home from our marine establishment not only cured of their osseous lesion, but with the aspect of health and excellent digestion."

The chapter on Fractures, by Valette, gives a clear description of the symptoms and mode of treatment of fractures generally. It is accompanied by twenty-six excellent original drawings, showing the various kinds of apparatus now in use for the reduction of fractures and the maintenance of the extremities of the fractured bone in position.

M. Raynaud's article on Gangrene includes both its general and special relations. He discusses its production owing to the disturbance of the vascular and nervous systems, traumatic gangrene, senile gangrene, gangrene occurring in fevers, from the use of ergot, and in diabetic patients. In the full bibliography of this subject we are somewhat surprised not to find Sir B. Brodie's excellent lectures quoted.

Quelques Observations Chirurgicales. Par M. CHARLES B. BRIGHAM, Docteur-Médecin. Paris: Germer Baillière. 1872.

THIS elegantly produced volume is the work of a young American physician who attached himself to the international ambulance established at the School of Forestry in Nancy during the Franco-German war 1870-71. The ambulance was opened for the reception of patients on the 15th of August, 1870, and contained thirty-six beds. Its organisation, its management, and its ventilation were borrowed from the rules practised under analogous conditions in America.

Eighteen chambers, each containing two beds, were set apart for the wounded—nine on the first, and an equal number on the second storey. Two apartments were devoted to service, the one for the two overseers, the other for the distribution of food and drink and the preparation of cataplasms. The laundry comprised two chambers, one on each storey. The kitchen and the *cabinets* were apart from the building.

The disposal of the wounded in separate chambers constituted the distinctive feature of Dr. Brigham's ambulance, and it is to it that he ascribes the cure of certain injuries of the gravest kind.

The hospital had a southern and a northern exposure.

Each chamber measured 3m. 65 in height, 3m. 95 in breadth, and 4m. 30 in length. It was lighted by a large window 2m. 60 in height and 0m. 45 in breadth, and opening of its own accord. A fireplace for the burning of wood or coal served not only for fuel but for ventilation.

Each room was in communication with the corridor, which extended along the entire length of the building, by two doors, in the space between which were conducted the *lavabos* of the wounded. Above one of them was an opening closed by an iron-wire lattice, and designed to aid the ventilation of the room. The corridors were lighted at one end by a large window, open night and day. The floors were of oak. The ground-floor was so arranged as to receive, independently of the *salle d'operation* already spoken of, a room for pharmacy, and finally a dining-room for the wounded. Attaching an importance not less great to every detail of cleanliness, Dr. Brigham took care that no requisite was wanting for that end.

The sulphate of iron was used as a disinfectant. Phenicated water was prescribed for dressing wounds, to the exclusion of the plaster, which Dr. Brigham regards as highly pernicious. Very attentive to the bathing of wounds, he saw scrupulously to the linen being changed as often as was necessary. Warm baths were brought to each chamber at certain stated intervals. As for the food, it was always excellent in quality and abundant in supply.

Lastly, the service of the ambulance was rendered by two overseers, assisted by two sisters of charity of the order of S. Charles, whose care, bestowed with that self-abnegation which true compassion can alone inspire, proved of invaluable aid to the medical department.

The organisation of an ambulance such as is here described offers many advantages to the wounded. On the part of the *personnel*, it exacts, no doubt, a most active and responsible round of duties. The superintendence of the wounded is not demanded for every minute, but it admits of the surgeon's leaving his patient alone in a room, only if the operation he has undergone renders his isolation favourable, or of his placing together those patients only who can be grouped without inconvenience. The *ensemble* of the conditions above indicated exerts a salutary influence as well on the bodily as on the moral frame of the wounded.

An apartment wholesome, well-aired, free from all noxious smell, an abundant diet, care and attention, constitute a remedy often more efficacious for the healing of the wounded than the drugs supplied by the pharmaceutist. Such is the conclusion drawn by Dr. Brigham from that organisation which obtained results so favourable in his ambulance. The majority of the wounded arrived in the most critical state, a great many of them enfeebled by a long sojourn on the battle-field without their wounds being dressed, by the privations of a trying march, and by lack of food. Their condition indeed was desperate. The ambulance admitted between the 15th of August and the 15th of March (when it closed) 134 wounded, of whom 18 died. Among these, 9 succumbed within ten days of their admission. Independently of the 134, the ambulance attended to 400 wounded *en route* to other stations, or resident in the town.

Dr. Brigham, who was assisted by Dr. Kievits, of Amsterdam, MM Largellier (of Paris) and Bagneris (of Nancy), and most of all by his compatriots, Mr. and Mrs. Welles and Dr. Evans, gives an interesting *catena* of cases, in which cure was wrought when it seemed more than improbable. The narrative is singularly clear, the observations acute and just, and the illustrations, which are photographic *replicas* of the cases cured, in the highest degree life-like and artistic.

THE POTATO ROT.

THE potato disease first appeared in Europe as a widespread epidemic in 1845, although there is little doubt that it had existed at intervals long before that time. Scientific and practical men lost no time in grappling with the new foe. Commissions both in France and England inquired into its nature, origin, and treatment; the Royal Agricultural Society offered prizes for essays on the disease; and all who had, or fancied they had, anything to say on the subject said it. The result we all know. Much valuable information has been collected and much nonsense talked, and yet for practical purposes we seem to be pretty much where we were. The disease has appeared again, our crop of potatoes is only half what it should have been, and no one knows what to do.

The earliest results of the scientific study of the disease were summed up in two lectures delivered by Dr. Lyon Playfair in the autumn of 1845 to the members of the Royal Agricultural Society. The lecturer pointed out, with his usual lucidity, the peculiarities of the plant, the composition of the tuber, and the chemical nature of the change produced in it by the operation of the disease. Rejecting the fungoid theory of the origin of the disease, he ascribed it to a simple decay or putrefaction of the gluten of the tuber—that is, according to Liebig's theory, then universally accepted, to a slow and imperfect oxidation, consequent on a deficiency in "vital force."

A more exhaustive account of the disease was given in the following year by Mr. George Phillips, of the Excise laboratory, in an essay for which the first prize was awarded to him by the Royal Agricultural Society. This essay is evidently the result of scientific observations and ingenious experiments, and it is a matter for regret that only a portion of it was ever published. Mr. Phillips made careful dissections of the stem, tubers, and roots of the plant, in health and disease; and drew particular attention to the powerful absorbent apparatus with which the roots were fitted, and to the small exhalation of water, compared with the size of the plant, which, under healthy conditions, took place from the leaves. He found that the roots of a well-grown plant had a total length of about one-third of a mile, and possessed about 24,000 spongioles for absorption from the soil. Hence he inferred that the potato plant required a light, porous soil, and weather which would permit free evaporation from leaves and soil. If the soil was heavy and the evaporation limited, the plant would be in a gorged and stagnant condition, and so (Mr. Phillips argued) would be prone to undergo putrefactive changes.

That the disease, however produced, consists essentially in a putrefaction of the gluten—the albuminoid matters—of the plant there is no doubt. In its healthy state the tuber contains from 2 to 3 per cent. of albuminoid matter, together with 16 per cent. or more of starch and about 75 per cent. of water. When the disease has spread throughout its mass, the starch is found unaltered, while the gluten is gone and the water has considerably increased, so that the tuber consists mainly of starch granules, which "float in a semi-fluid mass of putrid matter," to quote Dr. Playfair's words. Of this putrefactive change we have evidence in the disgusting smell which the diseased plants emit, and in the fact that the naturally acid tuber becomes strongly alkaline from the formation of ammonia, which, as we all know, is a constant product of the putrefaction of nitrogenous matters.

The observation of Berkeley, Morren, and others, that minute fungi make their appearance in the plant either with the disease or soon after, the mycellium spreading rapidly through the cellular tissue, is confirmed by all observers, and is a highly important fact. Phillips even found eel-like animalculæ when putrefaction had reached a certain stage. At the time when these discoveries were made controversy ran high in regard to them: one party, headed by Morren, ascribing the disease entirely to fungi, the germs of which were carried in a partial and irregular manner by the air; while another party, of whom Playfair

was the representative, adopted the theory we have already indicated—namely, that the fungi were not in any sense the cause of the disease, which was merely a decay or imperfect oxidation arising from deficiency of vital power in the plant. With our present knowledge, there is no difficulty in extracting the truth from these apparently contradictory views, for the researches of Pasteur have taught us to recognise organised germs as normal constituents of our atmosphere, and to ascribe all putrefaction as well as all fermentation to the vital changes of organised bodies. We now find no difficulty in admitting that, although the disease is indeed a putrefaction of the tissues of the plant, this putrefaction is induced and carried on by the agency of parasitic fungi.

This theory, therefore, affords a simple and intelligible explanation of the origin of the potato disease. The unhealthy conditions described so clearly by Mr. Phillips are necessary for the development of the fungoid germs which are everywhere present. The healthy living plant does not supply them with the pabulum necessary for their growth; but the same plant, thrown by unfavourable circumstances into an unhealthy state, falls an easy prey to them, and, once established, it is a hard task to destroy the parasitic life which has become so closely blended with the life of the plant.

The circumstances under which the disease appears have been recorded by many practical men, and each narrative tends to confirm the view of the nature of the disease which we have adopted. Dr. Playfair, speaking of the epidemic of 1845, says: "In the early part of the year, when the plants were starting into existence, we had a few days of unusually warm weather, which gave a great impulse to vegetation; ..... and when this forward vegetation ought to have been supported by an increasing action of the sun, we had cold, cloudy, and ungenial weather, and few there can be who did not remark our sunless season. ..... This was exactly the same kind of weather which produced the disease in America in 1843, and it is precisely similar to that which has been experienced all over Europe in the present year." How nearly this passage describes the summer of 1872 we leave our readers to judge. Dr. Lang, of Newton Abbott, in 1858, gave, in his prize essay on the potato disease, an account of his first observation of it in 1845, which is so interesting that we are sorry we cannot quote it entire. A violent gale with thunder had swept from the south-west some four or five days before, when he and two friends stood on a hill overlooking his own potato field and also a tract of orchard. He was "surprised at seeing a broad band of blackened leaves," 1000 feet wide, "running diagonally across the orchard," in the line of the recent storm, "in which band the apple trees looked as if they had been scorched by fire. Within the lines of the band there did not appear to be a green leaf; the smell was fetid and very disgusting." He traced this band for fifteen miles, and found that in it all the apple trees, the blackthorns, and *the potatoes* were similarly affected. In a fortnight the potato disease was almost universal. One of his friends being asked the cause of this sharply-defined blight, "said that he supposed it was '*lightning*'"—a remark which will remind our readers of the observations to which we referred a few weeks ago. Without attempting to account for the curious localisation of this phenomenon, we may point out its general corroboration of the statement that the outbreak was preceded by bad weather. Possibly the band marked the direction of a current of cold, blight-carrying wind. Periods of electrical disturbance are, we should remember, often periods of blight.

Our limits prevent us from considering the many suggestions for dealing with the disease which have been recorded. Theory would appear to indicate an antiseptic treatment as most likely to be useful, especially on the first appearance of the disease. Many antiseptics have, however, been tried, with no apparent success. It is true that they seem for the most part to have been applied, like manure, to the land—a course of proceeding which could hardly be expected to answer. It is somewhat dangerous to offer suggestions on so difficult a subject, but we cannot refrain from asking whether anyone has tried the effect of washing the plant, thoroughly and carefully, with a very weak solution of carbolic acid as soon as the first signs of blight appeared? If not, we think the thing would be worth a trial; for it is at least possible that the sporules of fungus might be destroyed by a washing that would do no injury to the plant. Dr. Lang, in the essay we have before quoted, sums up his advice in the following words, which we give without pretending to pronounce upon their value:—"The conclusions from all these observations are: That the disease is of a fungoid nature, increased in virulency by atmospheric causes. That all manures are injurious, saving only lime and salt. That the earliest potatoes in ripening should be exclusively grown. That earthing up repeatedly with fine earth is the only effectual preventive to the ravages of the disease."

THE SANITARY ASPECTS OF THE NEW SYSTEM OF DRAINAGE AT CALCUTTA.

WE have on more than one occasion adverted to what may well be regarded as one of the greatest sanitary victories of modern times—the new system of drainage and water supply for Calcutta. A great political party in this country has, through its chief, exalted sanitary science into a prominent position in its political programme of the future. India is now directly under the Imperial Government, and we take it that the successful piece of sanitary engineering at Calcutta might have served as a practical illustration in point. Spite of the opposition that he encountered, and the difficulties connected with the physical position of Calcutta, Mr. Clark, the engineer of the undertaking, having once put his hand to the plough, did not look back. Many of the more energetic opponents of his scheme, with a candour which demonstrated the sincerity of their convictions, have since expressed themselves strongly as to the practical advantages that have been already attained; but a good deal remains to be done before the scheme can be said to have been carried out in its entirety. The drainage and waterworks came into operation nearly simultaneously towards the end of 1869. The water-supply already requires extension, and the drainage, so far as house-connexions are concerned, is slowly progressing. Only about one-third of the city can be said to partake of the improved state of things. It would be impossible within the limits of this article to afford more than the barest outline of the details of the works, even if it were possible to render their description intelligible, without the aid of plans and of some topographical knowledge on the part of the reader. But we may say, as regards the general features of the city, that Calcutta is bounded on the west by the tidal river, the Hooghly, and that it is only on a portion of its eastern side that the open country is not cut off by some navigable and tidal stream. The surface of Calcutta has an inclination of nearly three feet per mile from the river towards the east. The most advantageous arrangement was to follow the natural though slight inclination of the surface, and to lay out a system with its general inclination towards the east, as the surface falls; and this has accordingly been done. The first-class sewers have an inclination of from two to three feet per mile, being about that of the surface under which they are laid. This has a double object: it permits the escape of storm-water into the river whenever the tide will permit, and it enables these sewers to be more or less flushed, if necessary, twice nearly every day in the year by water from the river. The second-class sewers discharge into these; their general arrangement is to divide the surface of the city into square areas by placing them under the leading thoroughfares. They have a minimum fall of six feet per mile; into these the smaller, or pipe-sewers, discharge themselves, and their inclination is at the rate of from thirteen to fifty feet per mile. The sewage from Calcutta is ultimately conveyed to the pumping-engines at Entally, and from thence along the high-level sewer to the salt-water lake, the vast expanse of which, some sixteen thousand acres, lies ready for its reception. It has been urged that it will be impossible to carry the smaller pipes into the northern part of the city, where the lanes are so narrow or tortuous; but Mr. Clark—from whose pamphlet on the drainage of Calcutta we are mainly indebted for our facts—

apprehends no serious difficulties on this score. One of the offices of the sewers is to remove the rain-water falling on the surface, and their capacity for discharge is calculated to be equal to about a quarter of an inch of rain per hour. This is an enormous quantity, and would, if collected, be represented by a running stream forty feet wide, eight feet deep, and flowing at a velocity of four feet per second. A main object of underground sewerage has been thoroughly attained; the fresh night-soil will reach the pumping-station in three or four hours, or before decomposition has set in, and the sewers are not, therefore, merely elongated cesspits. There can be very little doubt that Mr. Clark was right in selecting water as the most inoffensive and economical vehicle for getting rid of the sewage; and we fully concur with him in thinking the dry-earth conservancy, on the score of expense and other obvious difficulties, an utterly impracticable system in the case of large cities.

It was prophesied by many sanitarians that the proposal to empty large quantities of sewage into the locality known as the Salt-water Lake would be productive of evil consequences; but we do not entertain any fears in this respect from the sewage being utilised for the reclamation of this enormous tract of waste land. We should, on the contrary, anticipate that this part of the measure will eventually turn out one of vast importance from a financial point of view.

Physicians and sanitarians in this country and America have dwelt very forcibly upon the presence of damp, undrained soil as a principal factor in producing any diseases; and there can be little doubt that in tropical climes this condition of the soil is most inimical to health. As might be expected, one of the primary and most obvious advantages has arisen from the filling up of the filthy ditches, and the drainage of the subsoil in those parts of Calcutta where the works have been completed. Mr. Clark states, as the result of his observations, that the ground-water will vary from a few inches below the surface in the rainy season, to a few feet, at most five or six, in the month of May; whereas where the sewers are completed this subsoil water disappears to the level of the invert of the sewer—that is, it will be reduced to a level of about ten feet lower. He likewise gives a striking illustration of the improved sanitary condition that has resulted in the native hospital in Dhurrumtollah. In 1858 a coolie engaged on the works injured his hand, and was sent to that hospital. He perished from gangrene after amputation, and it appeared that this complication was an extremely common sequence of operations performed at the hospital. Much trouble and considerable expense had been incurred in improving the sanitary condition of the hospital, with so little effect, however, that it was considered that nothing short of the removal of the institution to another locality would be efficacious. When the work was commenced in May, 1858, the soil in the hospital compound, about three feet below its surface, was found to be a quicksand. By 1859 the Dhurrumtollah sewer, which is one of the main arteries of the system, was completed, and the effect was to drain the soil to a depth of thirteen feet below the surface. As the result of inquiries it appears that surgical cases now do well in the wards of the hospital, and gangrene has ceased to make its appearance. The surgeon in charge has had his attention forcibly directed to the different results flowing from his own surgical practice and that of his predecessors; and he attributes the improvement that has taken place in a great measure to the altered state of the subsoil drainage since 1858.

The northern division of Calcutta, as we have already intimated, still remains to be put on a footing, as regards its drainage, similar to that of the southern division or European quarter, and the native community are, we believe, thoroughly alive to the advantages of the new system of drainage, and desirous of obtaining their share of these advantages. The Report of a Special Committee having been favourable, and the success which has attended the scheme having, indeed, been generally acknowledged, the municipal authorities and the Bengal Government have resolved on extending the works to the northern division of the city. We understand that in February last orders were given to proceed with the works, and the Engineer establishment, previous to the commencement of the rains, completed about 8000 feet of the largest of the three remaining arteries of the system, and it is confidently expected, if the money be forthcoming, that the whole scheme will be completed in three years. It must not be supposed, however, that all opposition to it has yet died away. On the contrary, it would seem by a comparatively recent Blue-book issued by the India Office, under the title of "Measures adopted for Sanitary Improvements in India from June, 1870, to June, 1871," that Mr. Edwin Chadwick considers the work in Calcutta as a sanitary disaster. It is possible that Mr. Chadwick may regard any facts that do not square with his opinions as being "all the worse for the facts"; but we commend to his attention the following extract from the Municipal Report of Calcutta for 1871:—

Deaths in Calcutta.

	1865.	1866.	1867.	1868.	1869.	1870.	1871.
Cholera	5076...	6823 ..	6828...	4178...	3593...	1563...	800
Zymotic diseases ...	18,637...	15,970...	8709...	10,308 ..	9471...	7010...	6741
Total mortality ...	23,242...	20,283...	12,097...	13,733...	12,795 ..	10,102...	10,300

SHIP SURGEONS.

A GREAT deal of correspondence in maritime and other journals has recently appeared, ventilating the grievances of ships' surgeons, and indicating indifferent treatment, bad accommodation, and a second if not third rate position, as compared with the executive officers of the ship. Much, as with most vexed questions, may be said on both sides, and we propose to pass the question briefly in review.

The chief lines of steamships that carry medical officers are Cunard's, Inman's, and the other North American Companies, the Peninsular and Oriental and the West India mail packets, and the Cape and West Coast of Africa mail steamers. A small fleet of Telegraph ships now exists, employed by the two telegraph construction companies, most of which carry a surgeon. The vessels above-mentioned include the finest steam-ships afloat, with splendid cabin accommodation and prandial arrangements fully equal to any good-class hotel. The surgeon attached to these vessels receives a rate of pay varying from £10 to £14 per month, and in most cases 2s. per day as wine money. He lives in the saloon or at the officers' mess, and has a fair-sized cabin, which, in perhaps the majority of cases, has also to serve as consulting-room, dispensary, and surgery. The average routine of duty (if there are no troops or emigrants on board) occupies about three-quarters of an hour daily, and during the rest of the day and night he is as well, or as ill, off as any first-class passenger.

Proceeding, according to our own ideas, in the order of comfort, we come next to the good old class of sailing ships, some of which still clear from the Blackwall docks, the Mersey, or the Clyde, and accomplish their voyage out and home in from eight to ten months. The pay of surgeons on these vessels does not average more than £5 per month, exclusive of wine money,—the saloon fare is nearly as good as in the steam-ships, and the medical officer is usually quartered in a very good-sized cabin, either on the poop or lower deck, but, on rare occasions, has to share it with the second officer. It is hardly necessary in this place to refer to troop-ships, because, except in war time (when fees as well as freights are high), army or navy surgeons are always sent with troops afloat. But medical officers are, of course, always carried in emigrant and coolie ships. Capitation allowances, varying from 13s. to 15s. for each individual, are allowed in both kinds of work, and one or two cabins are given up to the medical officer. If the stream of emigration flows pretty continuously, and the numbers carried on each trip are fairly large, the medical officer, financially speaking, does very well, and ought to save money. But the financial advantages are, in many instances, more than counterbalanced by the excessive monotony of the voyage, and by the total absence of all educated society, if, indeed, we except that of the captain, the mate, and perhaps a schoolmaster or matron.

We believe that the above list includes pretty well all the varieties of civil medical appointments afloat. The positive, relative, or social position of any individual who holds such an appointment so very much depends

(as in Government work) on his own conduct and proclivities, that, as we take it, there is not much to be said on the score of snubbing or of petty indignities. Indeed, we can confidently affirm, having had experiences afloat in most quarters of the world, that if the doctor manages well, he can, in the long run, be more comfortable, and hold his own authority in his own sphere more completely, than any other man in the ship. It is, of course, superlatively unpleasant to be boxed up for several months with a surly, ignorant, or drunken captain, or with officers possessing the same questionable qualities; but this, as a matter of fact, is quite exceptional. All who elect to serve afloat must expect discomforts of some sort, but we incline to the opinion that a minimum only of them is accorded to the ship's doctor.

HEAT AND MORTALITY IN NEW YORK.

THE remarkable mortality which occurred in New York from sunstroke in the first week of July last, when 212 deaths took place from the "direct effect of solar heat," as officially returned, will no doubt lend interest to the following extracts from the meteorological returns of New York and of our own Royal Observatory for the week in question, as well as for the preceding and succeeding weeks.

	New York.		London.	
	Mean Temp.	Highest in Sun.	Mean Temp.	Highest in Sun.
	°	°	°	°
June 23 ...	77·5	120	60·9	149
„ 24 ...	68 6	91	65·3	144
„ 25 ...	65 7	71	61·4	120
„ 26 ...	69·2	98	56·9	143
„ 27 ...	71 9	105	58·0	127
„ 28 ...	80·3	118	61·5	147
„ 29 ...	84·0	120	57·8	138
„ 30 ...	85·8	124	61·3	150
July 1 ...	88 1	125	60·5	141
„ 2 ...	87·6	128	63·0	150
„ 3 ...	82·2	120	61·7	133
„ 4 ...	84·3	122	66·1	149
„ 5 ...	80 6	121	70·8	158
„ 6 ...	79·0	118	68·0	157
„ 7 ...	78 0	121	70 7	148
„ 8 ...	78·0	111	60·5	110
„ 9 ...	77·8	114	60·0	142
„ 10 ...	80·0	115	62·3	153
„ 11 ...	82 6	123	66·8	125
„ 12 ...	78 7	95	63·3	138
„ 13 ...	76·6	115	58·0	142

The registered mortality was at the rate of 17 per 1000 in London and 42 in New York for the week ended 29th June; in the next week it was 19 in London and 87 in New York; and in the last week of the three it was 20 in London and 58 in New York. The excess of mean temperature in New York over London was 15·7° in the first week, 19·4° in the second, and 13·6° in the third. Notwithstanding, it would appear from the official returns that the sun was hotter at some time almost every day in London than in New York; but there must surely be a difference in the character or position of the thermometers to account for this contradictory appearance. One death from sunstroke occurred in New York on the 29th June, and the deaths therefrom on the succeeding seven days were 7, 34, 68, 43, 44, 12, and 4, respectively; the fatality from diarrhœal diseases just doubled itself in that week, which will be a memorable one in the city annals.

SANITARY INSPECTION IN THE PORT OF LONDON.

The following document has been issued by the Local Government Board:—

"To the Mayor, Aldermen, and Commons of the City of London, the Sanitary Authority of the Port of London, and to all others whom it may concern:

"We, the Local Government Board, acting under the authority of 'The Public Health Act, 1872,' and the several other statutes in this behalf, do hereby, until the 25th day of March next, assign to the Mayor, Aldermen, and Commons of the City of London, as the sanitary authority of the Port of London, all the powers, duties, capacities, liabilities, and obligations created by or arising out of the Nuisance Removal Acts; that is to say—'The Nuisance Removal Act for England, 1855,' the Act passed in the session of the 23rd and 24th years of her Majesty, intituled 'An Act to amend the Acts for the Removal of Nuisances and the Prevention of Diseases,' 'The Nuisances Removal Act for England Amendment Act, 1863,' 'The Nuisances Removal Act, No. 1, 1866,' and so much of 'The Sanitary Act, 1866,' as relates to the amendment of the Nuisances Removal Acts, together with all the powers, authorities, and duties contained in the provisions of the last-mentioned Act in regard to ships and waters, and persons engaged therein, and in regard to providing hospitals or temporary places for the reception of the sick, so far as those several provisions apply to or affect the local authorities therein mentioned.

"And we do further by this order assign to the said sanitary authority the duty of appointing a legally qualified medical practitioner to be the medical officer of health, and also a competent person to be an inspector of nuisances for the said port, to act respectively as such officers during the term aforesaid.

"Given under our seal of office, this 7th day of September, 1872.

"JAMES STANSFELD, President.
"JOHN LAMBERT, Secretary."

REGISTERS OF HEALTH.

To the Editor of THE LANCET.

SIR,—Every medical man must have felt the difficulty of obtaining the history of patients, the accounts rendered by themselves being imperfect and unreliable, while, for want of communication between the various medical attendants, the treatment is apt to be uncertain and disconnected. An accurate record, with a view to establish some defined and concerted plan of treatment, would be more advantageous to the patient and more satisfactory to the practitioner.

As most cases during a lifetime come under the notice of several doctors, it is very desirable (as reference is rarely possible) that any experience gained by a former treatment should be available in a subsequent and probably similar or recurring affection; such notes, carefully made, would become a valuable medical record. I propose that a register should be kept by every patient, to commence, if possible, from birth, and contain a concise entry by the medical attendant of each disease or attack as it comes under treatment, with any short note necessary for reference on a future occasion, when the document should be produced. When the patient is the subject of a specific malady, a medical entry would be very suggestive for future treatment. Its perusal would afford more information than any inquiry could give, while questions of an unpleasant character could often be avoided and much time saved.

"The Register of Health" should be inspected in the case of children entering or returning to public or other schools, in applications for life assurance, or other medical examinations, and be, in fact, analogous to the papers of a seaman, but, being only for professional notice, would be of a privileged character.

Such a plan could not be carried out without the co-operation of medical men. This, however, would give it a value and enhance its accuracy. I enclose forms (one filled in with my own medical history as exemplifying the plan), which I beg to suggest for the purpose, and which I intend to use in my own practice, and should be glad of your opinion as to the feasibility of carrying out these arrangements generally.

I am, Sir, yours very truly,
FREDERICK H. SMITH, M.D.

Lewisham-hill, S.E., August 31st, 1872.

THE foot-and-mouth disease is still very prevalent in Herefordshire, Worcestershire, Kent, Oxfordshire, and Northamptonshire.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 21, 1872.

IT is always pleasant to listen to a man who perfectly understands what he is speaking about; and that pleasure was afforded to the ocial Science Congress at Plymouth by the President of the Health Section, Dr. ACLAND. The public well-being, physical and moral, has long been the favourite theme of this physician. Rather less than twenty years ago he studied with great care the conditions under which the cholera epidemic broke out at Oxford; and in his monograph on the subject he advanced opinions and suggestions of an import far beyond the time and place which called them forth. In pamphlets, addresses, and lectures he has evinced, since then, his ever-increasing interest and experience in the great sanitary field; and the discourse he delivered last year before the Royal College of Physicians surveyed the subject of "National Health" with a most intelligent and genial eye. Subsequent legislation has silently adopted much of his advice; and, accordingly, the Act of last session, provisional as in great part it is, formed the highly appropriate subject of his address just delivered at Plymouth.

The key-note of that address was struck in the remark that "the cardinal basis of national health is a wise education"—a remark recently made and illustrated with great clearness and comprehensiveness by Sir JAMES COXE before the Medico-Psychological Association. Make the people the intelligent guardians of their own health. Teach them from childhood the fabric and functions of their physical and moral constitution—the conditions under which that complex whole can alone develop and operate healthily,—and you have taken the first step towards the amelioration and ultimate perfection of the individual and of society. You will have struck at the root of self-indulgence, which leads to vice, pauperism, lunacy, and crime. You will have established a public opinion under which the unhealthy and squalid lives led by the lower orders will be impossible from the just perception and requisition of their own wants on the part of those orders themselves. The culture which must precede this consummation, however, must be of a far more direct and, so to speak, personal kind than that which the teaching body has hitherto been capable of imparting. The teachers themselves must be taught—must, in fact, realise in their precept and in their practice, in the lessons they inculcate and in the discipline they enforce, the principle that healthy minds and healthy bodies are one.

The world cannot wait, however, till the advent of such a halcyon period. Disease is too distinct and deadly a fact to admit of any "inactivity," however "masterly," in dealing with it. While the primary aim of the lawgiver must be the preservation of health, it must necessarily include provisions for the prevention of disease. With this view the Government must exercise for the people a paternal function. Recognising the great principle, that the people ought to be the best interpreters of their own wants, and not treated like children as in the old feudal days, immediate legislation must also ascertain what they cannot do for themselves; secure them the clean dwellings they require; give them fuel, air, water, and unadulterated food. The struggles of successive Governments to legislate for the public health have, however, been defeated by adverse interests. Mr. GOSCHEN, when he introduced his sanitary measure within the last two years, had to withdraw it the moment it came in contact with the great question of local taxation. There should be a concentration of all sanitary powers in the hands of a first-class Cabinet Minister, containing within the office all the elements required for superintending the whole health of the nation on the principle on which the present Act is based—a principle which has at least this advantage, in Dr. ACLAND's judgment, that it can deal with adverse interests in a direct and summary way. Why, for instance, should a county hospital, because supported by voluntary contributions, be exempted from inspection? Take, again, the reorganisation of charities. Is it endurable that we should go on for another half-century without seeing that there is no waste of the energies and powers either of Governments or individuals in caring for these? To prevent the squabbling, incessant in town and country, as to who is or who is not eligible for relief and so forth, there must be the fusion in one central office of what is called the care of destitution and the care of health. "The two subjects are inseparable, and in the present state of civilisation it is necessary that these two great departments of the State should be united." Local self-government under such a twofold office is the Government's present solution of the problem of sanitary legislation—a solution in accordance with the instinct and constitution of the Anglo-Saxon race on both sides of the Atlantic.

Dr. ACLAND joins us in denouncing that provision of the Act which renders lay inspectors eligible for duty under the Local Government Board. "It is absolutely necessary," he adds, "that there should be attached to the office what are called scientific experts"—experts whose decisions can bear cross-examination on points of science before a court of law. It is not wanted that the Local Government Board should pay large salaries to *savans*; but that it should retain the services of first-rate men of science, who shall be paid fees for their opinions. We agree with Dr. ACLAND in thinking that such a course would prevent all litigation in the working of the Act. With the one exception of the eligibility of lay inspectors, Dr. ACLAND is willing to let the Act stand as it is for a season, till its provisions are tested, and such questions as local taxation and the reorganisation of charities are settled.

YEAR succeeds year and brings the same sad story from India. Its monotony is only broken occasionally by the medical history of some particular year standing out from the rest as exceptionally bad. At the present time the news is not by any means reassuring. The mails bring accounts of outbreaks of cholera at various military stations. The disease has appeared at Allahabad, Meean Meer, Agra,

Lucknow, Cawnpore, and other places. Speaking generally, the outbreaks have been limited as to time and circumscribed as to extent, but the mortality among those attacked has been most lamentable. The barracks at Allahabad have attained an unenviable notoriety. They are old and badly placed; the drainage around is said to be most defective, and it is very possible that the water-supply may have become tainted. The 37th Regiment at Meean Meer has also been attacked by cholera, and in a comparatively short space of time nearly a hundred cases proved fatal. The regiment was moved into camp, and when at a distance of some eighty miles from the station the epidemic was reported to have entirely ceased. Meean Meer, again, is a wretched, hot, sandy station, and the site of a burial-place of our old enemies, the Sikhs. Meanwhile Blue-books pour in upon us from India; hypothesis succeeds hypothesis, borne upon the surface of a sea of statistics; and impracticable kinds of investigation, as they seem to us, are undertaken without end. We have on previous occasions alluded to the instructions issued by the Army Sanitary Commission, and we take these as an excellent illustration of a method of inquiry so indirect as likely to lead nowhere and to terminate nowhen. We are far from saying that an inquiry should not be conducted upon the largest scale, from several points of view, and by numerous and different methods. But what we do contend for is this: Here is a terrible disease recurring season after season with a regularity which would be monotonous were it less melancholy; the causes and conditions which influence its spread are alleged to be so and so; and these are capable of being readily understood and subjected to the test of experiment. We are incredulous as to the results that will arise from an exhaustive and *de novo* system of examination of a subject like that of cholera, for the simple reason that, if we cast aside the facts that are already known as so many false guides, we are very much like a man who refuses to employ his reason lest it should mislead him. The blind man who casts away his staff throws aside, it may be, a poor and uncertain aid, but the only one on which he has to lean. Where the conditions are so many, complex, and diffused, it is hopeless to attempt the examination of them all without some reference to their possible relevancy to the subject under investigation. It is impossible to examine everything on the earth, in the air, in the water, and in the waters under the earth; and, for all we know, cholera, like some of the epidemics of the middle ages, may have ceased altogether before we have entered on the preliminary stage as to what facts are relevant or not to the subject of that disease. That there may be, and no doubt are, some influences, occult and mysterious to us, which operate at uncertain intervals and in uncertain ways in the development of epidemic diseases, as in the development of low forms of animal and vegetable life—the potato disease of this very year for example,—is nothing to the point. What we want to know is—Are such and such doctrines true?—are they capable of affording a reasonable explanation of the largest number of facts?—and what would be the practical result of their acceptance, in the meantime, as the best, because the only, working hypothesis on which to "govern ourselves accordingly"? Let the origin of cholera be what it may, we take it that a body of men attacked in a given district can convey the disease to another and healthy one; and we ought to act accordingly. Again, where there are several factors at work it is surely wise to deal with those which are within reach of remedy or removal. If Dr. BRYDEN'S views be correct, the prospect for our race in India is not the most hopeful and invigorating; and if a pandemic wave prove to be the real influence at work, the future is no better, for we cannot alter the course of these waves; they will continue to fight against us as did the stars in their courses against Sisera.

We have no desire to dogmatise, but within the limits at our disposal it would be impossible to do more than indicate the "lines of thought and action" that seem to offer the most hopeful and the most practical paths for us to pursue in our attempts to deal with cholera in the East. Between the views advanced by writers in this country and in India in regard to cholera there has been a wide divergence. The extent of the country, the nature of the climate, the presence of cholera as an endemic disease, and its frequent occurrence and rapid progress in an epidemic form, have tended to vastly increase the difficulties of tracing the steps of its progress in a country like India. On the other hand, cholera being an occasional visitant of this country and Europe, its advent and geographical progress as an epidemic, and its occasional origin and spread on a limited scale and within a circumscribed sphere, where the conditions existing at the time of its occurrence have been well known or traceable, have removed many obstacles and difficulties that stood in the way of its investigation. Of late years very much has been done towards approximating the views of several scientific men and sanitarians of both countries, and they may now be said to be practically identical. It is asked, with no uncertain sound, whether the laws which are supposed to influence the spread of cholera in this country are not those which will explain its occurrence in India? and, if this be so, whether we ought not to adopt the same or similar precautions in both? Although the contagion of cholera is held to be different in many respects from that of small-pox and scarlatina, the central doctrine in England in regard to cholera is that it nevertheless possesses a certain peculiar infectiveness of its own, which, in the words of Mr. SIMON, can operate with terrible force and at considerable distances from the sick where local conditions assist.

It is held to be characteristic of cholera, even in its least developed form, that discharges from its subjects are capable of infecting other persons, either directly, or, what is far more important, indirectly through tainting the water, air, or food which people consume. It follows from this that the disease is likely to operate in direct proportion to the facilities locally open to it in the places wherein it has arisen or been imported. The array of facts that have now been collected leaves no room for doubt in our minds that one of the most certain and dangerous vehicles for the spread of the disease is water. It is one medium, but of course not the only one; for, as the history of the outbreak at Southampton and other places proves, sewer-air derived from a drain into which cholera discharges have been received is another. In the case of infected drinking-

water the poison is swallowed, but it may be introduced into the system through the aqueous vapour of the atmosphere. As the phenomena of cholera are supposed to be due to the action of a something specific, it is considered that ordinary impurities do not by their action induce that disease; and it is contended that an infinitesimal portion of the infective material must exert some catalytic action on indifferent matter to impart powers of propagating the disease so enormously disproportioned to its quantity. Let this be as it may, or let us barely state the belief of some authorities, that during the presence of a cholera epidemic the extent and fatality of the disease are in proportion to the impurity of the water-supply, and the practical lesson is the same.

The Army Sanitary Commission, in a memorandum on some reports on the chemical analysis of potable waters in the Bengal Presidency, state that the analyses show that, with few exceptions, the water-supply of stations, especially where the sources have been in use for some time, is more or less impure from contaminating matters not naturally belonging to the source. It seems to us, then, that the suggestion made by Mr. CLARK is both a good and practical one for military stations—viz., that of collecting all the rain-water from the roofs of the buildings in a cantonment and carrying it to a covered reservoir, protected from all possibility of contamination and interference, with pipes for its distribution in barracks. Many of our readers who know India would shrug their shoulders with a shrug of incredulity if we stopped here; but we do not. We do not say, for we do not know, how far the provision of pure water would go towards annihilating cholera at its birthplace in our Indian possessions. The experiment might, however, be tried, and tried in connexion with another, which we regard after all as the great thing to be achieved in India—viz., the removal of the European troops to the utmost practicable extent from the plains of India to the hills.

ALL those interested in the working of the Public Health Act in rural districts will await with considerable curiosity for some precise indication of the ways and means whereby the President of the Local Government Board intends to educate officers of health. It is now generally known that a staff of lay or legal inspectors is already appointed, the members of which are probably at the present time diligently engaged in reading up the "Common Law" aspect of the question. If indeed we are correctly informed, it is the intention of Mr. STANSFELD to appoint chiefly junior laymen as inspectors, who are to be instructed in their work after they have entered office, and will be taught only a technical knowledge of the various Acts that they will be called upon to interpret for the benefit of the provinces. They will, in fact, when ready for action, be perhaps rather better informed upon the subject than the town clerks of local boards or the clerks to the guardians in parishes; but in no other respect better, if indeed equally, able to explain the matter to those who require advice and information. These gentlemen are to be content with a comparatively small salary; for, as they will bring nothing into Whitehall, it is proper to take care that they shall carry little or nothing out of it. We have, indeed, no doubt whatever that, according to the text of their teachers, these gentlemen will do the sort of so-called inspectorial work exceedingly well. They will learn their lesson; they will be able to tell the difference between one Act and another, between a clause and a section; and may possibly be able to define a nuisance, even if deprived of two special senses. They may, indeed, by diligent attention, become most useful authorities on "alterations of areas" and "union of districts"—subjects which, as our readers know, occupy ten sections of the new Act. The proposed emissaries will, in fact, go forth from Gwydyr House primed with lots of material, to be disbursed, not indeed for the benefit of the health officer, but of the local legal authority, whoever he may be.

Such being the case, we may with good reason ask where and from whom the district health officer is to seek advice. It is perfectly plain that these junior lay inspectors will be both unprepared and disinclined to give any explanation whatever on points of sanitary science, and will of course act well and wisely in referring the inquiries back to the brains of the authors thereof. But scientific questions will be asked and must be answered, because the public know that they can be replied to succinctly and satisfactorily, and because the successful working of the Act distinctly depends upon this phase of its application. In brief, we may venture to prophesy that under an exclusively lay inspectorate the Public Health Act of 1872 will come to a dead-lock and cry loudly and lustily for aid from the medical department, or will inevitably die from inanition. Time will prove.

OUR notice has lately been directed by numerous correspondents to the great increase of various forms of advertising among the members of the medical profession; and we are desirous to call the general attention of our readers to the subject, in order to obtain such an expression of opinion as the facts may be thought to warrant. The practice of advertising is not confined to any class of practitioners, but the method and style adopted vary greatly in different cases. We have more than once pointed out that some men of good metropolitan position, holding hospital offices, do not scruple to advertise their books to an extent greatly in excess of the legitimate requirements of a publisher, and that they do so in a way manifestly intended to catch the eye of the general public, rather than to appeal to those professional readers for whose benefit their writings are avowedly composed. Next in order come the writers of popular quasi-medical treatises—books distinctly written for the public, and having a constant under-current of suggestion that the supposed author is a very much wiser man than his neighbours. We say the supposed author, because it is a fact well known to publishers that books of this class are seldom written by the persons whose names and qualifications adorn their title-pages. They are usually the work of students, or young practitioners of small means and some literary capacity, who may often write books that are very good, or at least not misleading, except in so far as they have a direct tendency to bring patients to a practitioner who may have little or no claim to the confidence that his "work" enables him to inspire. The announce-

ments of such books as these are generally somewhat sensational in their character; and the books themselves descend, through varying gradations, until they finally reach a level undistinguishable from that of the "Confidential Adviser" or the "Secret Friend."

While men of more or less repute are thus distinguishing themselves, the desire for notoriety has seized also upon others, who seem to think that the mere publication of their names—the extension, so to speak, of their brass plates in the form of cards or circulars—will procure them employment from persons who would otherwise be blind to their merits. We receive every week documents of this class, framed on the model of the puffing announcements of inferior tradesmen, and given to the world sometimes in the columns of a local newspaper, sometimes by being thrust under the doors of neighbouring householders, and sometimes by being sent out as circulars through the post. It is not altogether unnatural, if the practice of advertising is once supposed to be sanctioned by superior authority, that men of lower grade, possibly with neither brains to write books nor money to pay others to do so for them, should be content to announce their readiness to visit for half-a-crown and to attend a case of midwifery for half-a-guinea. All forms and gradations of what may be called personal advertising do, in fact and strictness, hang together and pass into each other without perceptible boundaries. It is useless to attack or to condemn the small offender so long as the man in higher position is suffered to escape; and it therefore behoves the profession to consider well what attitude it should assume towards its advertising members, and upon what grounds it should form a judgment in the case. We live fast nowadays, and it may be that some conscientiously believe in the necessity of abandoning old scruples and old traditions, and of seeking publicity at any price or sacrifice.

If we are asked why it is objectionable for medical practitioners to advertise, the answer must be that they are, or should be, supposed to be gentlemen and men of science, and thus to be possessed of delicacy, modesty, and love of truth. It is by virtue of these qualities that the profession, as a body, is so much esteemed by all classes of the community, has so strong a hold upon the poor, and enjoys so thoroughly the confidence of the rich. People usually place the most unreserved trust in their doctors; but no one in his senses would place trust in the jack-pudding whose business it is to blow his trumpet in front of a booth. And just as a lapse from virtue is often so destructive to the whole moral character of a woman, so a lowering of the tone of conventional usage is detrimental to the whole character of a man. A practitioner who does something for which he knows that the bulk of his fellows will look coldly upon him, has lost one great safeguard for his professional rectitude, and is more likely than another in some way to abuse the position conferred upon him by the public. The men who advertise reinforce the ranks of those who demand extortionate fees from the higher classes of their patients, and send unnecessary bottles of medicine to the lower; and, in proportion as these practices increase and extend, the whole status of our calling is injured, and its members are degraded in the eyes of those who should look upon them with respect. We have not a word to say, of course, against the legitimate advertising which would be done at the instigation of publishers by *bonâ fide* authors; but we feel that every man who passes this limit is standing on the verge of a steep and slippery descent. The custom of advertising is a snare for the honour of the profession; and we should rejoice in a declaration of opinion that would remove this snare out of the way of our ranks.

UNDER the title of "Histological Processes in Divided Nerves," Dr. BENECKE, of Königsberg, contributes an important paper to the last part of VIRCHOW'S *Archiv*. His investigations, he says, have extended over many years; and he has experimented upon cats, rabbits, crows, fowls, pigeons, and various small birds. Of all these he finds young cats the best adapted for research, as the nerve trunks in those animals contain very little connective tissue in their interior. The mode of operating consisted either in dividing the nerve with the knife, or in applying a fine silk ligature for a few moments, which is almost equally efficacious in cutting through the axis cylinders. The changes induced were examined at various intervals of time, ranging from two hours to six months, and both in the fresh state and after maceration in different preserving fluids. The first changes observed, and these take place within a few hours after section, are that the two extremities of the nerve adjoining the cut become of a greyish or yellowish-red colour, cloudy aspect, and more or less strongly swollen. These changes are due to congestion of the severed bloodvessels, and to the imbibition of the serous transudate. In a short time the part of the centric extremity lying near the cut and the whole peripheric part assumes a cloudy-yellow tint, becomes somewhat attenuated, and tears easily. The sheath of SCHWANN undergoes, at first at least, very little alteration; the medullary sheath, on the other hand, coagulates, and breaks down into a finely granular detritus. The axis cylinder early appears enlarged and swollen, but soon attenuates, and ultimately disappears entirely. In the later stages of the process of disintegration it is impossible by any means to bring it into view. BENECKE has never been able to find that the degenerative process progresses in an orderly manner in either direction from the lesion; but believes that it takes place *coincidently* throughout the whole length of the peripheral extremity, and in the immediately adjoining portion of the centric end.

But even whilst disintegration is advancing, the process of regeneration has commenced, in the form of multiplication by fission of the nuclei of the neurilemma, or sheath of SCHWANN. These soon become converted into elongated fusiform bodies, and after a time form the only contents of the empty and collapsed sheaths, which then, he thinks, disappear. The protoplasmic processes of the new elongated nuclei now undergo fusion, and unite to form pale slender bands coincidently in the cicatrix and in the peripheral end of the divided nerve, which is thus brought into organic connexion with the central stump. In the further progress of the regenerative process a medullary sheath is gradually formed around the primitive bands or cylinder axes originating from the nuclei. These last no longer

retain their ordinary appearance, but become homogeneous, a few only remaining in each fibre, from which the normal sheaths of SCHWANN are afterwards developed.

Upon the whole, therefore, it would appear that after section the proper nervous tissue of the entire peripherical portion of the nerve undergoes disintegration and disappears, whilst regeneration is effected by a process precisely analogous to that which many observers have demonstrated to occur in the natural development of the nerves in the tail of the tadpole and in the embryo of the fowl; the cylinder axis being first formed by the coalescence of nuclei, to which the white or medullary substance and the sheath of SCHWANN are subsequent additions.

THE philosophers of the daily and weekly general press, when they descant upon the social changes of our time, upon the vast increase of wealth, upon the growth of luxury, upon the endeavours of all classes to tread upon the heels and to copy the customs of those superior to them, upon the influence of strikes, upon the products of industry, and upon the present prices of many things which either are, or are reckoned to be, among the necessaries of life, usually wax eloquent in their sympathy with "persons of fixed incomes." They hold up the elderly annuitant, or the gentleman of small means, or the lady with a definite pension, as being among the greatest sufferers, among the most cruelly jostled, in that race for wealth and station which is run by nearly all the world. To a great extent we concur in what is thus so commonly said; but we wish to call attention to the sufferings of another class also, who as yet have excited no similar sympathy. Many years ago, it became customary that the honorarium of a physician should be a guinea; and this guinea has ever since retained its position as a medical unit of value, although sometimes shorn of its fair proportions by those who omit or forget to add shillings to their sovereigns. Now it is manifest that, since this standard was adopted, nearly everything has changed excepting the number of patients who can be seen in a day; and this number has been diminished by the discovery of modern means of diagnosis, and by the consequent necessity of employing the stethoscope, the laryngoscope, the ophthalmoscope, or the microscope, in addition to hearing the story, feeling the pulse, and looking at the tongue. On the other hand, the incomes of members of the middle classes generally have greatly increased; and with this increase has come a corresponding increase in the cost of living and in the style and character of the establishment which a physician or surgeon is expected by the public to maintain. There can be no doubt that if Dr. W. FARR could obtain the issue of the standard coin of twenty-five shillings that he has so long advocated, this coin would at once replace the guinea in the profession; and that even then it would leave us in a relatively far worse position than that of our predecessors by whom the guinea was first adopted. Some increase in the current medical honorarium is, we think, not only urgently required, but absolutely inevitable; and practitioners cannot too soon endeavour to educate the public mind in this direction, and to use all convenient and suitable opportunities for pointing out the progressive inadequacy of the fee as at present established. There are two such opportunities which frequently occur; the first being afforded by first consultations, the second by correspondence. With all due regard to the claims for indulgence of people of small means, we think that the standard fee for a *first consultation* should now be *two guineas*; and that *two guineas* should also be charged for writing a letter, either of advice to a patient, or for the purpose of conveying opinions to another practitioner. If this plan were adopted by men in leading practice, it would soon become universal; and it would constitute the first step towards a reform which cannot be very long delayed.

Medical Annotations.

"Ne quid nimis."

PRACTICAL SURGERY.

THE regulations of the College of Surgeons, which apply to all students who entered at a medical school in October, 1870, contain the following among the certificates required for the membership:—

"8. Of having attended a course of practical surgery during a period occupying not less than six months prior or subsequent to the course (of surgery) required by the preceding clause.

"*Note.*—The course of practical surgery referred to in Clause 8 is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to surgery, on the living person or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of the diseases and accidents on the living person or on the dead body; the performance, where practicable, of the operations of surgery on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of morbid anatomy and otherwise."

We have had the curiosity to look through the prospectuses of all the London medical schools, in order to see what provision was made for carrying out this important course in the forthcoming session, and as the result is somewhat surprising, we propose to lay it before our readers.

At *St. Bartholomew's* the course of practical surgery is duly announced to meet on three days in the week under Mr. Willett, the demonstrator.

At *Charing-cross* the course is not mentioned, but there is a summer course of bandaging under Mr. Clarke.

At *St. George's* a *summer* course of practical surgery is announced under Mr. Holmes and Mr. Pick, and it is remarked that "attendance at one course of the winter lectures and two courses of those given in the summer is now rendered obligatory by the regulations of the Royal College of Surgeons."

At *Guy's* no mention is made of a distinct course of practical surgery, but at the end of the notice of the lectures on surgery by Mr. Birkett and Mr. Forster it is announced that "Mr. Rendle also gives special demonstrations on the model in bandaging and other branches of practical surgery previous to each pass examination for the membership of the College." A course of operative surgery under Mr. Durham, during the summer session, is also announced.

At *King's College* the subject is not mentioned, though in the school advertisements Mr. Wood is put down as Professor of Practical Surgery.

At the *London Hospital* no mention of the subject occurs, but there is special instruction in operative surgery during the summer by Mr. Maunder.

At *St. Mary's* no mention is made of practical surgery, and the course of lectures on the principles and practice of surgery is announced to extend over *two* sessions.

At the *Middlesex* a course of practical surgery is announced under Messrs. Hulke, Lawson, and Morris, but the days and hours are left blank in the time-table.

At *St. Thomas's* a course is announced, under Messrs. Croft and MacCormac, for one day in the week during the winter, and two days in the week in the summer session.

At *University College* the course is announced to consist of three divisions—the use of surgical apparatus under Mr. Hill twice a week during the first half of the session; surgical morbid anatomy under Mr. Beck twice a week during the latter half of the session; and operative surgery under Mr. Heath during the session and in April.

At *Westminster* no mention is made of practical surgery, but there is a summer course of practical instruction in bandaging and the minor operations of surgery by Mr. Davy.

Comment on the above is uncalled for. We are content to leave the Royal College of Surgeons to see its own regulations carried into effect. We may, however, call attention to the following regulation which has applied to all the schools for the last two years, but to which we find a reference in but one of the London prospectuses. Each student is now required to produce a certificate—

"14. Of having been individually engaged, at least twice in each week, in the observation and examination of patients at a recognised hospital or hospitals, under the direction of a recognised teacher, during not less than three months.

"*Note.*—It is intended that the candidate should receive the instruction required by Clause 14 at an early period of his attendance at the hospital."

THE PUBLIC HEALTH ACT AND THE PORT OF LONDON.

IN accordance with the last subsection of the 20th clause of the Public Health Act, the Corporation of the City of London has accepted its responsibilities, girded up its loins, and has appointed a Port Sanitary Committee, consisting of from thirty to forty members. We are informed that this Committee have held two or three meetings, have made an excursion to Gravesend, have obtained the loan of an Admiralty hulk called the *Rhine* (which is to be moored somewhere below the latter place), and have otherwise bestirred themselves most energetically. Some few days ago the Corporation received an "order" from the Local Government Board (a verbatim copy of which will be found in another column), which indicates very distinctly the duty that devolves upon them of appointing a medical officer of health and an inspector of nuisances, for a period extending only to the 25th of March, this date being fixed to cover the next meeting of Parliament, when the order must be either superseded, confirmed, or rescinded. However, it is perfectly clear that, for the next six months, all vessels in the port must be treated as houses within the meaning of the Act, and sanitary regulations must be made accordingly. It will of course be necessary for the Port Committee to appoint an officer at Gravesend for emergency duty, to visit any suspected vessels that may be reported as such by the Customs, and to take charge of any cases that are sent on board the hospital-ship. But it is plain enough that the real work will be centred in the area between London-bridge and Woolwich. This area includes about seven miles of water-way, seven sets of docks on the north, and one on the south side of the river, as well as forty dry docks. The population of that area fluctuates to a considerable extent, and is probably more locomotive than any other in the United Kingdom. But this seemingly unmanageable district may (and under the auspices of so active a body as the City Corporation will) be brought under good sanitary control by an energetic health officer and a good inspectorial staff. We turn to THE LANCET records of the last cholera epidemic in 1866, and find that for nearly five months all vessels moored on the Thames between London-bridge and Woolwich, as well as those in the Regent's-canal Basin and the City-canal, were visited every twenty-four hours by a medical officer; and although so systematic an inspection can only be considered needful as an extreme measure, the experiences of the past show that, with legislative aid, plans may be adopted and carried out in the future that will greatly aid the prevention of disease afloat, and, *a fortiori*, improve the sanitary condition of the metropolis.

THE AUTUMN MANŒUVRES.

THE Autumn Manœuvres for 1872 terminated with the union of the two armies on the 12th inst., and the march-past on Beacon-hill. In a military point of view, we imagine that they have not added very much to our knowledge of the art of war, and from a medical-service point of view there seems little or nothing to chronicle. The hospital system pursued was a kind of hybrid between that of the Germans and our own. The men of the Army Hospital Corps were too few in number and too scattered to be of much real service, and they seemed to have had, generally, but a faint idea of what constitutes discipline, smartness, and cleanliness. No attempt was made at trying a corps of sick-bearers, after the German fashion. Our hospital marquees, though very good indeed, are too cumbrous for easy conveyance, and the process of pitching them is a troublesome one, requiring a good supply of men to effect it. The troops were very healthy, the proportion of sick being only about one half of that of soldiers in garrison. They got through a good deal of hard work, made long marches, sometimes in execrable weather, and were always very cheerful. Altogether, the physique and appearance of the men were such as any nation might have been proud of. Speaking generally, the regulars showed much more "staying power" than their *confrères* of the militia and volunteers; the men composing some of these regiments knocked up easily, bringing the ambulance-waggons into requisition. The accommodation in this respect, indeed, proved insufficient; but the doctors were not to blame for the shortcoming, as they had to take what they could get. The object of the army taking the field was that of training and instruction, and the authorities were probably right in having restricted the number of hospital vehicles as far as practicable, evacuating the sick on established hospitals by means of contiguous lines of railway. About 150 men were sent to Netley, and among these some cases of typhoid fever from Blandford—the disease, however, having probably been contracted elsewhere. The camping-ground was necessarily sometimes swampy and undrained, and the waterproofs required raising by straw, which was purchased by several commanding officers for their men. Sore feet and lameness were not uncommon among the dismounted men of the cavalry, owing to the character of the cavalry boots.

FACTORY DUSTS AND GASES.

MR. ROBERT BAKER, one of the chief inspectors of factories, gives some interesting notes on this subject in his last report to the Home Secretary. Since 1864, when the prevalence of dusts and gases generated during the manufacture of certain articles attracted official attention, the inspector has made two unsuccessful requests, one of which was to employ and pay for medical skill in order to determine if a particular dust was or was not injurious, and the other for power to claim the

opinion of a competent machinist as to the best mode of applying "other mechanical means" (according to the terms of the Earthenware Act), supposing a fan to be unnecessary or too expensive. He has also paid special attention to the workers in china scouring, hollow-ware turning, shoe-tip grinding, polishing with emery, button making, and china clay in cotton weaving, which last has lately been brought into use in certain districts of Lancashire. The china scouring was specially commented on by Dr. Greenhow some years ago, and Dr. Arlidge, of Stoke-upon-Trent, has collected statistics showing the prevalence among the workers of bronchitis and pulmonary consumption. The latest official remarks on the effect of the dust of china clay in cotton manufacture were made by Dr. Buchanan in his report upon the sizing process and its influence upon health as observed in the district of Todmorden. After describing minutely the irritating effects produced by the dust, he remarks that "the Todmorden death-rate of the last few years, as compared with that of ten years ago from lung disease and consumption, shows only one important change, and that consists in a considerable increase (from a rate of 13·40 to a rate of 18·60) of such mortality among people over fifty-five years old." Mr. Baker reports, with reference to this subject, that the use of respirators has materially mitigated the discomfort and consequent mischief arising to the workers, and his observations on other matters all tend to show that the value of medical, as distinguished from lay, inspection of factories and workshops is now being very much appreciated by the authorities at the Home Department.

QUININE.

WHY do not the prescribers of subjects for the "Newdegate" prize, or for its counterpart at Cambridge, select the "Naturalisation of the Chinchona Plant"? Nothing can be more romantic—more pregnant with mighty results—more susceptible, in a word, of poetic treatment, than that exploit. Little more than twenty years ago, the Dutch contrived, at imminent peril and amid much trans-oceanic vicissitude, to convey a few slips of the quinine-bearing chinchona to Java, on whose slopes it now flourishes luxuriantly. Their example was followed by ourselves; but by that time the jealousy of the Peruvians at the threatened loss of their staple product was aroused, and it was only after adventures parallel in their strangeness to those of Bolivar, the liberator, that our agent, Mr. Cross, succeeded in escaping from the country with the progenitors of those plantations which now cover the slopes of the Neilgherries and the lower spurs of the Himalayas. Next to the romance of its naturalisation, the prospect of its services to the cause of civilisation and enlightened enterprise, whether missionary or commercial, is full of inspiration. Quinine is to the European resident in the Tropics what the Davy lamp is to the miner—the condition not only of his activity but of his life. But for quinine, we should have known little or nothing of Central Africa. But for quinine, the great missionary explorer whose assured safety has so recently afforded such universal gratification could not have achieved what he has done, or be enabled to prosecute his quest to the close. But for quinine, our tenure of India would be rendered doubly precarious. This last consideration gives peculiar significance to the success of the chinchona plantations in the Madras and Bengal presidencies. Within herself she produces the conditions of her subjection to British rule. But those conditions are susceptible of infinite expansion. The fever to which our troops and stations are exposed yields to no remedy so easily as quinine, and yet that drug is still so dear that its use is dangerously restricted. Cheaper substitutes have been resorted to with disastrous results, inasmuch that the Indian Government a few weeks ago telegraphed for a special supply of 500 lb. of quinine for consumption in Burdwan alone. This consignment of sanitary munition will arrive not a minute too soon to meet the febrile outbreak expected in October and November. The home Government, however, is not always to be relied on in such emergencies; and not till the realisation of the late Lord Mayo's hope, that quinine will be supplied from Indian head-quarters, not at 6s. but at 1s. an ounce, can the sanitary, the social, nay, even the political condition of our greatest dependency be regarded as safe. With increased immunity afforded by this chief of febrifuges from the malaria of the jungle or the hill country, every undertaking, whether local or imperial, in India may be expected to double its progress, so as to convert the peninsula into something infinitely more to us than Sicily was to the Roman republic—the granary, the storehouse, the *cella penaria* of the central power.

SANITARY MOVEMENTS IN GERMANY.

FROM Berlin downwards the cities and towns of the German Empire are badly off on the score of hygiene; and during the last session of the Reichstag, petitions, with a view to sanitary reform, were addressed to the Imperial Chancellor. The movement derived its first impulse from the medical profession, which within the last twenty years has been labouring, but not very satisfactorily, to form a system of medical statistics. The existing sanitary machinery, from its numerous defects, was found to be the great obstacle to this undertaking. Reinforcing this movement on the part of the profession came the municipal awakening as to the insanitary state of the community. The rapid growth of the large towns, the example of English parochial administration, and the ravages of the two last epidemics, forced upon the public mind the necessity for a general board of health. Communal authorities united with medical societies to memorialise the Legislature; but a difficulty arose as to the administration of the contemplated board. Should it devolve on the Empire? If so, the general supervision of health would have points of contact with nearly every branch of the public administration. Educational and ecclesiastical arrangements, the building department of the police, and the whole province of local sanitary committees—all present distinct occasions for interposing in the interests of the public health. An Imperial administration might therefore, through its functionaries, be brought into frequent conflict with the officers of the empire and of the component states. But does the enactment of an imperial law for the public supervision of health necessarily imply that its direction must devolve on the empire? A common judicial system did not interfere with the legal functionaries of the federal states; why, then, should a common sanitary system do so? Imperial legislation might prescribe, while leaving the federal states to carry into effect. Even with this limitation, however, the interposition of imperial legislation is open to objection. Intimately as the public supervision of health is bound up with the general administration of the country, the legislative powers of the federal states are so diverse that a common organisation, in a particular administrative department, would at present be quite impracticable. Parochial administration, too, presents the same difficulties. Every suggestion for an administrative organisation of the public supervision of health implies a previous reform of existing institutions, and there is great diversity of opinion, as shown by the petitions to the Reichstag, as to the direction this reform should take. Before, therefore, local and municipal interests are interfered

with—a step which would be premature on the part of the Legislature—a central board of health might be established which, by its special acquaintance with the subject, would enable the Government to decide, scientifically and satisfactorily, as to the propriety of all measures affecting sanitary affairs. Such a board would be the appropriate organ through which the Government could alone suggest hygienic measures to a State Legislature. A system of medical statistics would be the first thing to be established. Private associations for this object are labouring in vain; and the medical profession is calling aloud for a system of statistics, or a mass of figures and facts arranged on a common plan, so as to enable them to raise the supervision of the public health to the rank of an inductive science. The desultory efforts now being made in this direction would be gradually focalised and fused by a central board of health. Acting under the authority of the Government, the board would conciliate the contributions of practitioners for the establishment of an approximately accurate system of medical statistics. Under these considerations, Prince Bismarck has proposed to the Federal Council the institution of such a board of health for the empire, composed of ordinary and extraordinary members. The former, resident in Berlin, would aid the Government in supervising the medical and veterinary police, in taking cognisance of all analogous institutions in the different federal states, in preparing and submitting to the empire legislative measures, in watching the operation of all public health laws, in reporting to the State and local authorities on particular cases, in observing the progress of sanitary legislation in foreign countries, and in framing a thorough system of medical statistics for Germany. The extraordinary members, non-resident in Berlin, would be chosen from the municipality of the larger towns, from the government medical officers, or practical chemists and architects. They would be liable to be summoned for consultation by the president, they would have to watch over and report on all sanitary details in their respective neighbourhoods, and finally, take part in the general conferences held at Berlin. These proposals of the Chancellor would first be laid before a committee for examination, and thereafter submitted to the Federal Council. Such a board of health would have its *prima cura* in observing rather than innovating; but once convinced of the necessity for a material change, and it would cease to be German if it failed to effect it with energy, efficiency, and dispatch.

A GRAPHIC PORTRAIT.

OUR artistic contemporary the *Graphic* has, we understand, determined to adorn its pages next month with the portraits of the gentlemen who deliver the introductory addresses in the principal London medical schools on the 1st of October; and, with this object in view, the editor has addressed a letter to the gentlemen in question, asking them to forward without delay their respective photographic portraits, "together with a few biographical details for the accompanying article." Now, it is a little remarkable that this year, with one exception, the introductory addresses have fallen to the lot of junior members of the respective hospital staffs, who may possibly, in their innocence, fall into the net laid for them, and favour the world, not only with their likenesses, but with brief autobiographies. We venture, therefore, to warn them not to yield to the voice of the charmer—"charm he never so wisely,"—for the effect of any such publication cannot fail to be injurious to them in a professional point of view, and may be brought up against them years hence by some kind friend whose memory is malevolently accurate.

Of course, the proposed notice of the *Graphic* is in one sense flattering, as showing the interest presumed to be taken by the public in matters medical. At the same time, we feel sure that the editor of that periodical cannot fail to see the incongruity of publishing a group of medical portraits in the frame employed for a boat's crew, when those gentlemen have been simply performing a professional duty, in many cases irksome, and certainly in no sense partaking of the public excitement of an aquatic contest.

THE NORTH SURREY SCHOOL.

THE Guardians of the Wandsworth and Clapham Union have addressed to the Local Government Board an application for an inquiry into the management and condition of the North Surrey School. The Board has replied by pointing out that the evils complained of in the establishment were all in actual process of abatement or removal at the time when the complaining guardians first called attention to them, that they arose under officers all of whom have lately made way for others, and that it is unnecessary, and would be unjust, to institute an inquiry at a time when reforms are being actively carried out by those who have only lately taken charge of the institution. It cannot be doubted that this reply is fully justified by the facts of the case, and that it was indeed the only one that could be made with fairness at the present time. But it will be very satisfactory to the public to receive hereafter, when the necessary reforms are completed, and have produced their effects, an official assurance that these effects are all that could be expected or desired. We are quite prepared to wait a reasonable time, but we expect to see good results as the reward of our patience.

THE HEALTH OF THE RUSSIAN ARMY.

ACCORDING to the *Gazette de Moscow*, the health of the Russian army is becoming progressively ameliorated. The mortality, it is stated, diminishes from year to year. In 1868 the ratio of deaths per 1000 was 21, in 1869 it was 20, and in 1870 it had fallen to less than 17. Serious and protracted sickness among the troops has diminished in like proportion. On the other hand, however, slight sickness has increased. This interversion is explained by the fact that much more severe supervision is maintained, and states of indisposition among the soldiers previously neglected are now recognised and dealt with, with a view of preventing them passing, as happens at times, into more serious conditions of disease. Sickness, it is reported, is much more common in the army than among the civil population. In 1870 the recorded instances of sickness per 1000 of the troops was not less than 800. The proportion of individuals suffering from sickness is not stated, the returns referring solely to instances of sickness, the same individuals appearing in the list many times for recurring attacks. The excess of sickness in the army, as compared with the civil population, is held to arise from the greater exposure to the weather and other climatological conditions to which the troops are subjected, and against which the administration is powerless. A special source of ill-health, now done away with, affected, however, the soldiers stationed in the arrondissement of Kharkow. Here there was an insufficiency of barrack accommodation, and much overcrowding of the troops. The Minister of War has caused courses of lectures on military hygiene to be delivered at the principal military stations. The commandant of the arrondissement of Kazan has made permanent a sanitary committee originally formed for a temporary purpose; and the *Caucase* journal suggests that advantage would be derived by forming in each regiment a sanitary committee consisting of the officers and the medical staff. In the Caucasus,

it is said, the ratio of mortality among the troops at different stations varies from 16 to 85 per cent. The conditions of military life are the same, and it is obvious, argues the *Caucase*, that these great differences in the mortality of troops must owe their origin to causes which might either be avoided or removed.

SPORT AND CHARITY.

THE bitterest opponent of the Game Laws would, we think, relent a little if lords of the manor made the same use of their preserves as Sir Richard Wallace. That great public benefactor has not only forwarded from Compiègne vast quantities of game for the benefit of patients in the Paris hospitals, but has announced his intention of devoting to these and other charitable institutions a large proportion of all that is shot this year in the forest. The munificent gift will doubtless be an annual one, to the signal advantage of the poor recipients. For the invalid and the convalescent, game has a considerable while peculiar therapeutic value—its rarity and daintiness, among other merits, awakening appetite, and supporting strength, where other kinds of food would pall. It is in preserves that game develops most luxuriantly, and attains its best nutrient properties; but these enclosures are regarded with jealousy, not unnatural, when their feathered inmates are shot and used by the proprietor or the leaseholder for his exclusive pleasure and profit, and more frequently for his exclusive profit than pleasure. Let the owner of preserves enjoy as much sport as he likes, but let him set apart a fair proportion of the quarry for the benefit of charitable institutions, and neither his sport will be grudged him, nor a lion's share of the quarry. Let, in short, the example set by Sir Richard Wallace be imitated, and the political agitator will cease to make capital out of the Game Laws, as the most outstanding instance of the unequal lot of rich and poor.

HEALTH OFFICER FOR GLASGOW.

WITH the appointment of Dr. W. T. Gairdner in 1863 to the professorship of Practice of Medicine in the University of Glasgow, systematic attention to the hygiene of that city began. In their respective districts the five police surgeons controlled, in a fashion, the hygienic arrangements; but practically preventive work was never set on foot till under epidemic alarm. Their salaries as police surgeons were so small that little indeed could be expected from them. On the advent of Dr. Gairdner, however, the Sanitary Committee of the Police Board prevailed on him to become their scientific adviser, his salary at first being £200 per annum. The epidemic then raging was accordingly combated with such success as to induce a systematic effort to prevent succeeding ones; and Dr. Gairdner found himself at the head of an organisation of district police surgeons, with salaries as health officers ranging at first from £25 to £50, and thereafter from £60 to £100 per annum. Three years ago further steps were taken. The Sanitary and Cleansing Committees of the Police Board were consolidated as the "Health Committee." A chief sanitary inspectorship (salary £300 a year) was instituted. From forty to fifty house-to-house visitors served in the districts where epidemic disease declared itself, and did other duties under the Glasgow Police Act and the Public Health Act. Dr. Gairdner, as chief medical officer of health, was reappointed at a salary of £300 per annum, with an assistant medical officer at a salary of £125 per annum, while the district officers remained *in statu quo*. A penny-wise-pound-foolish policy, however, soon became epidemic at the Police Board. Its discussions of the Health Committee's reports betrayed the feeling of members that while the new staff, medical and non-medical, had improved the health of the city, too much money was absorbed by it. The grumblers have (as usual) prevailed, and a new organisation is in process of construction.

It is now proposed to invest one responsible person with the duties ordinarily fulfilled by a health officer—"to transfer, in fact, to Glasgow the system which, in Dr. Trench's hands, has worked so well in Liverpool." Glasgow, however, though the larger city, wants to give her medical officer £600; while Liverpool, the smaller, pays a similar functionary £1000 a year. The Glasgow scheme, no doubt, contemplates retaining Dr. Gairdner's services at a fee of £100 per annum; but that gentleman has not yet accepted the proposal. For the health officership now open no fewer than forty-five candidates have applied, only two of whom are from Scotland. This latter circumstance is ascribed to "a feeling pervading the medical profession in Scotland that the appointment will be a very insecure one"; to say nothing of the fact that the officer in question must give up all other professional duties. Out of the forty-five, a selection has been made by the Health Committee, and the appointment will take place at the next meeting of the Police Board. The gentlemen selected are: Dr. James B. Russell, physician to the Fever Hospital in Parliamentary-street, Glasgow; Dr. Thomas Johnston, for four years police surgeon to the western district of that city; and two gentlemen, one from Carlisle and another from Salford. A deputation of the Health Committee has been in communication with these two latter gentlemen in their respective towns.

QUANTITY OF NITROGEN IN MUSCULAR TISSUE.

NOWAK (*Wien. Akad. Ber.*, lxiv., [2] 359) finds that the method usually employed for the determination of nitrogen in muscular tissue (conversion into ammonia by combustion with soda-lime) does not give accurate results. The percentage of nitrogen is always too low, and varies by as much as 0·8 per cent. in the same sample. The method of Dumas (combustion with copper oxide, and measurement of the nitrogen as gas) is thoroughly trustworthy, and by employing it Nowak obtained the following percentages of nitrogen in dry flesh:—Horse, 13·48—15·01; dog, 12·40—16·43; ox, 15·00—15·92; man, 14·61—16·02. If this observation is correct it will necessitate the revision of a great many important analyses. The flesh-formers of food are often estimated by determining the percentage of nitrogen and multiplying it by 6·3. It is clear that this calculation can no longer be employed if the above figures are correct, for one sample of dog's flesh would appear to contain 103·51 per cent. of flesh-formers. Of course a part of the nitrogen in flesh is not present in the form of albuminoids.

AN ANCIENT HOSPITAL.

GREATHAM, near West Hartlepool, has just been celebrating the six hundredth anniversary of its hospital. Full choral service in the brilliantly crowded parish church was followed by an impressive discourse from the Archbishop of York. Through six hundred years of eventful history this hospital has pursued the noiseless tenor of its way—illustrating in its services to the community the various systems of treatment that have risen and waxed and waned during that long period of time. Founded by a bishop (Stichell) in 1272, its six hundredth anniversary had its appropriate president in an archbishop (Thomson) in 1872, who "was happy to observe that by recent reforms the institution was likely to become richer, and that special provision was about to be made for the accommodation of several decayed and aged clergy in the province of York."

The benefit to the surrounding community from such a hospital as Greatham cannot be appreciated by the casual visitor to its wards, unless thoroughly read in local history. The annals of our foundations for the reception of the sick and hurt would form a most fascinating as well as instructive book. Is there no medical Anthony à Wood, or are there no brothers Cooper to do for these institutions the service already done for the universities on the Isis and the Cam?

NORMAL PRESENCE OF ALCOHOL IN THE BLOOD.

IN a paper published in the *New York Medical Journal* for 1872, Dr. Hutson Ford, of New Orleans, refers to the difficulty experienced even by Claude Bernard of determining the destination of the hepatic glucose formed in the liver. Claude Bernard found that in blood placed under, or otherwise submitted to, the action of oxygen, carbonic acid, nitrogen, hydrogen, arseniuretted hydrogen, or air, sugar sooner or later, but *invariably*, disappeared. With regard, however, to the mode of destruction of the sugar in these cases, or the nature of the product of its transformation, he suggested no explanation. Dr. Ford conceived that it might be due to a fermentative process, and that this would most likely be the lactic and alcoholic. From various considerations he was led to believe it was the latter, and by calculation estimated there should be rather more than 1-20000th of its weight of alcohol in the blood. He gives very full details of his method of inquiry, and finds the results of his analyses agree fairly with the proportion obtained by theory. Thus, in 20,000 parts of fresh lung tissue he obtained ·6 parts of alcohol, but from the putrescent tissue, in which fermentation of the glucose originally present had proceeded, he obtained ·76 parts So from fresh thoracic blood he obtained ·16 parts, but from putrescent blood 1·52 parts in 20,000. The destination of the alcohol he believes he has demonstrated must be to a hæmal oxidation or combustion, and must form an important source of animal heat.

THE NEW WATER-SUPPLY REGULATIONS FOR LONDON.

IN a recent number of the *Metropolitan* these regulations were subjected to a critical analysis, resulting in the general conclusion that under such a system a constant supply will never be obtained by public action. According to our contemporary, the conditions attached are so expensive and onerous that no body of householders or occupiers will voluntarily become subject to them. Thus, it is said that the service-pipes will have, in most cases, to be replaced by much heavier ones, that not one "draw-tap" in a hundred is of the kind required by the regulations, that a general reconstruction of waterclosets will be necessary, and, in short, that the outlay "would always be quite 50 per cent., and in many cases would equal the entire original cost of the plumbers' work in building a house in the first instance."

We have not space to go into the details of the criticism, the broad results of which we have thus summarised, and furthermore the chief points at issue relate to plumbers' work, and are therefore outside our province to discuss. But we may point out the importance of an opinion adverse to the new regulations gaining acceptance with the district boards and owners of property in the metropolis. That would simply render the introduction of the constant supply hopeless, perhaps for a long time to come. We trust, therefore, that steps will be taken to let the public know what is the real truth of the matter. A few words from Mr. Rawlinson, whose practical knowledge of the whole question will be admitted by everybody, would be of service just now. Are the opinions of the *Metropolitan* upon the subject of these regulations warranted by the facts, or are they not? London pauses for a reply.

HYGIENE IN ROME.

THE fever is abating in Rome; but no thanks to any counteragents prescribed by the Government. It has declined with the heat. The overcrowding is still responsible for a good deal of sickness. Poor workmen, denied even a garret or an outhouse, bivouac at night on the steps of churches or in the colonnades of palaces, if not in the open air, the treacherous night wind, laden with telluric poison, stealing over their exhausted frames. Their diet, too, is of the meagrest—none of the roast meat and full-bodied wine which enable the better conditioned classes to live down the evil influences of an unhealthy climate and a perfunctory hygiene. Building operations, moreover, are being prosecuted with less energy than the occasion demands. Projects innumerable are started for the addition of new quarters, but beyond the restoration of a few old houses little seems added to Rome. Pending the realisation of these projects, the first requisite for the city is increased hospital accommodation. The inmates of these establishments do not decrease in number, though the applications for admission are becoming fewer. Sanitary improvement in all its forms must render the new capital of Italy inhabitable all the year round, otherwise its selection as the seat of government, with no commerce, no navigable river, few railways, and much fever, must be ascribed to historical sentiment rather than to objective fitness.

STRYCHNINE AND CHLORAL.

M. ORÉ presented to the last meeting of the Academy of Sciences a new work on the question of the antagonism between strychnine and chloral. He finds—1. That not only does the intravenous injection of 1 milligramme of strychnine (a fatal dose for a rabbit of 4 lb. weight) fail to prevent the animal from succumbing to the influence of 4 grammes of chloral, but the presence of the alkaloid does not manifest itself by any characteristic phenomena. 2. The injection of 2·5 milligrammes of strychnia produces well-marked convulsions. In one case it appeared to retard the death of the animal, without, however, preventing it; for it died with all the symptoms of chloral poisoning. 3. In proportion as the dose of strychnine augments (3·45 milligrammes), death occurs with greater rapidity. 4. If the dose be raised to 7·5 milligrammes, the action of chloral is entirely obliterated, and the animal dies by strychnia poisoning. 5. If we try to combat the effects of chloral given in a fatal dose by the subcutaneous injection of strychnia, the animal always dies—most frequently from the action of the first substance, though sometimes from the second. Hence he concludes that strychnia is not an antidote to chloral.

THE BAKERS' STRIKE.

THIS, the most important strike in London, has one feature about it which we regret to see its promotors making less of than they pledged themselves to do at first. The bakers struck for a day of twelve hours, to begin at four A.M., for a free Sunday, and a rise of three shillings per week a man; and offered, if their terms were conceded, to withdraw all men from dishonest shops—in other words, to strike against adulteration. No offer can compare with this in its importance for the public. If the bakers were wise they would not relax one fibre of their resolution to deal a death-blow at food adulteration, light weights, and

false measures, by which, in the baking more than in any other trade, the public are made to suffer. The sympathy they would receive would take the most tangible forms of support, and the community would co-operate with them in such a manner as to make their employers think twice before refusing their not unreasonable demands. Besides, they would furnish a valuable precedent for other trades to imitate, and show the working classes in general an example, which, if adopted, would put labour at a high moral advantage over capital.

THE RATING OF HOSPITALS.

THE *South London Chronicle* has lately contained a very sensible article on the general question of the rating of charities, based upon the recent appeal made in the case of St. Thomas's Hospital. The article contains a droll mistake in speaking of the attached school as an institution "doing a good business," and therefore weakening the case for exemption of the hospital *per se*. Unless the governors of St. Thomas's Hospital are more generous than we suppose them to be, the school pays rent for its buildings, and would be easily capable of a separate assessment, of which nobody could complain. But the points to be considered are, first, the difficulty of defining the hospitals or charities that should be exempted from rates, and next the injustice which such exemptions might inflict on other portions of the parishes in which the buildings were situate. The writer makes the practical and good suggestion that, inasmuch as a large part of the total rate is devoted to paying for services in the benefits of which all charities participate, such as paving, lighting, sewerage, and other matters, the bare poor's rate is the only one concerning which any claim for exemption could properly be raised; and he points out that this might be repaid to useful charities by the localities which they benefit. It seems quite clear that general exemption by law is not to be expected, and that any enactment for the purpose might open a door for abuses of the gravest character.

NAVAL MEDICAL SERVICE.

THE remains of the late Deputy Inspector-General Bernard, R.N., were removed from Spa to Plymouth, where the funeral ceremony was performed with all the naval and military honours belonging to the lamented officer's rank. A body of three hundred marines formed the firing-party, and the ceremony was attended by all the chief naval and military authorities of the port, and a large concourse of spectators.

Deputy-Inspector W. T. Domville, who was appointed temporarily to Plymouth Hospital, has been confirmed in the vacancy caused by Dr. Bernard's death; but the name of the staff-surgeon selected for promotion has not yet been announced.

We regret to learn that Deputy-Inspector Pottinger has been obliged to invalide from Hong-Kong, and is now on his way to England.

PHYSIOLOGY OF THE BILE.

SOME years ago Nasse demonstrated that the bile of the pig was capable of converting starch into sugar. He was unable to obtain evidence of the presence of any similar ferment in other kinds of bile. Von Wittich showed how the ferment could be isolated. Jacobson observed the saccharifying power of the fresh bile of the frog, pike, carp, sheep, ox, pig, rabbit, cat, horse, goose, duck, and fowl, but was unable to exhibit it in the bile of man; and this he attributed to the decomposition of the ferment after death (Pflüger's *Archiv*, Heft 3, 1872). Owing to the kindness of Dr. Hertz, v. Wittich has recently had the opportunity of examining some fresh bile of the human subject escaping from a fistula; and his experiments prove conclusively that it possesses a ferment capable of converting boiled starch into sugar.

SMALL-POX AFLOAT.

A COASTING vessel with small-pox on board found its way last week up Bow-creek, near Blackwall, and up to the present time has not, as we are informed, undergone any process of cleansing or disinfection. Coasting vessels of all kinds will claim the attention of the future port medical officers much more than foreign-going ships, because the crews of the former live (often with their wives and families) constantly on board, and because, too, they never come under any surveillance by Customs' officers. The North-country colliers are about the dirtiest vessels afloat, and a vast number of them pervade the Thames all the year round.

THE MEDICAL CLUB.

WE are authorised to state that the recent proposals for building and furnishing a new establishment not having received the anticipated amount of support, the project has been abandoned, and the lease of the present premises in Spring-gardens has been renewed. The Hon. Secretary and present proprietor, Captain De Vic Valpy, has very wisely, in our opinion, acted in accordance with the views generally expressed in the replies received to the late circulars in taking this step, and we trust that the present members will aid him in adding to their numbers.

WADSLEY PARK ASYLUM.

SOUTH YORKSHIRE has long been in want of extended asylum accommodation—a want which the building just completed, and formally opened on Saturday, the 7th inst., will amply meet. Its exact site is Wadsley Park, three miles from Sheffield; and its accommodation is equal to 750 patients. Should enlargement be found necessary, new wings will be added; while the asylum, as it stands, is well provided with ground, 136 acres being set apart for farming and horticulture. It has already cost £120,000. Lord Wharncliffe presided at the inaugural banquet, which was attended by deputations from all the boards of guardians in South Yorkshire.

TYPHOID FEVER AT BANGALORE.

IT is a somewhat curious fact that cases of typhoid fever have been making their appearance for several years among the troops at this station—probably one of the best and healthiest in all India. According to recent accounts, cases of this disease were prevalent in the Artillery lines. The exact causes to which their occurrence is to be attributed does not seem to have been very positively determined. Several causes have been alleged, but it was the opinion of Dr. Barclay that tainted water was, upon the whole, the most probable cause. A comprehensive scheme for supplying Bangalore with water has been before the Government, but it may be years before it can be carried into execution.

MEDICAL EDUCATION OF WOMEN.

THE ladies are so munificently supported in their endeavours to qualify as medical "men" that there is every prospect of their soon having a college or school of their own. Such an institution would solve all difficulties as to attendance at classes hitherto reserved for male students. Among their latest benefactors is Mr. Walter Thomson, of London and Shahabad, who has intimated to the "Ex-

ecutive Committee for securing a complete medical education to women in Edinburgh" his intention of immediately placing at their disposal the sum of £1000. Mr. Thomson declares himself dissatisfied with the action of the Senatus Academicus in the matter of Lord Gifford's recent decision, and invites auxiliaries to the cause of the ladies.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A GENERAL MEETING of this Association will be held at the Medical Club, 9, Spring-gardens, on Tuesday, Oct. 1st, at 7.30 P.M. precisely, for the purpose of considering what will be the best plan to secure in the next session of Parliament legislative sanction to those clauses of the Public Health Bill, and notably those relating to the extension of the dispensary system to the rural districts, which, having originally formed a distinctive feature of the Bill, were subsequently abandoned by the Government. The bearing of the Public Health Act on the Poor-law Service, and the appointment of lay or legal inspectors only to carry out its provisions, will be also dealt with. As many Poor-law medical officers will be attracted to the metropolis by the opening of the winter session, it is to be hoped that they will find time to attend a meeting where so many matters materially affecting their interests will come up for discussion.

CHOLERA AND SMALL-POX AT ST. PETERSBURG.

CHOLERA and small-pox still persist in St. Petersburg, but neither disease prevails in a very active form. On the 3rd of September forty-three new cases of cholera were officially reported; and from the commencement of the outbreak on the 23rd of June, to the 4th instant, the numbers of cases and deaths recorded were as follows:—Cases, 2949 (males 2055, females 894); deaths, 1418 (males 979, females 439). The small-pox outbreak began on the 13th of April, and from that date to the 4th of September 2426 cases (1546 males, and 880 females), and 844 deaths (513 males, and 331 females), had been reported from the disease. On the 1st of September the official returns showed twenty-five new cases of the disease.

SCURVY.

A LARGE Liverpool ship arrived in the Victoria Docks a few days ago with three cases of scurvy on board. Two of these were very severe, and were sent at once to the Seamen's Hospital. One of them has since died; and the medical inspector of the Board of Trade has been directed to institute an official inquiry into the cause of the outbreak.

A FATAL accident to a young member of our profession is recorded by the *Scotsman*. Dr. Alexander Grant, son of Mr. Grant, of Kingsford, was found dead in his bedroom in his father's house at midday on Wednesday, the 11th inst. The deceased, it appears, had been examining some pistols, one of which, having been loaded, had seemingly gone off accidentally, and shot the unfortunate gentleman in the head. Dr. Grant had recently obtained his degree, and was about to leave for a situation in the south.

WE understand that Messrs. Ballière, Tindall, and Cox will shortly publish a work from the pen of Dr. Gordon, C.B., Inspector-General of Hospitals, entitled "Practical Lessons on Hygiene and Military Surgery." The work will be of a semi-official character, as Dr. Gordon was specially attached to the French army by her Majesty's Government during the Franco-Prussian war.

THE ipecacuanha plant, next to the chinchona for its medicinal value in India, thrives apace in the Calcutta Botanical Gardens. Out of twelve plants, the only surviving offspring of a single plant received in 1866 from Dr. Hooker of Kew, no fewer than 400 cuttings have been artificially propagated and have taken healthy root. From Edinburgh Professor Balfour and the Messrs. Lawson have forwarded to the Calcutta Gardens 250 plants. Experienced chinchona gardeners have taken charge of the entire stock, and have found that the sultry steam in the valleys of the Sikkim Himalayas, where they sink into the terai, reproduces exactly the conditions under which the Brazilian plants flourish.

THE Commissioners in Lunacy, in reply to a question put by the Guardians of St. George's, Hanover-square, state that the sixty-fifth section of the Lunatic Asylums Act, 1853, permits the guardian of any union, or their medical officer, or the overseer of any parish, to visit and examine (under certain restrictions) any or every pauper lunatic chargeable to the union or parish, and confined in any asylum, registered hospital, or licensed house.

ON Sunday last, Dr. G. E. Yarrow, assisted by Dr. Burchell, performed the Cæsarean operation on a woman, the subject of rickets, at the City-road Workhouse. Up to this time (Thursday) both mother and child have progressed satisfactorily. We may probably be able shortly to publish a full report of this interesting case.

THE Governor-General of India has offered a prize of £100 for the best essay "On the Nature and Causes of the Fever in Burdwan, and the best means of preventing its continuance." The competition is open to all who have passed the Calcutta Medical College.

LAST week the mortality in London and twenty other large towns was at the rate of 24 deaths annually to every 1000 of the estimated population. In the metropolis there were 12 deaths from small-pox, 22 from scarlet-fever, and 119 from diarrhœa.

THE late Prof. von Graefe's family will not be without a guardian, his brother-in-law, Herr von Thile, Secretary of State for the Foreign Department of the North German Empire, having resigned his post in order to undertake their upbringing.

WE understand that an outbreak of cattle-plague in the West Riding will necessitate an inquiry there; and we are glad to state that we hope shortly to be in a position to bring the subject of the latest investigations regarding this disease before our readers.

THE Cross of Merit for German matrons and maidens has been bestowed by the Emperor William on Mrs. Lionel Strauss, of Carlisle, as a mark of his Imperial Majesty's appreciation of that lady's efforts in relieving the sick and wounded during the late war.

THREE HUNDRED young Russian women have applied to be enrolled as students in the special courses of medicine and surgery lately established for females by the Academy of Medicine. It is stated, however, that the number of admissions is restricted to seventy.

THE *New York Herald* states that letters from Dr. Livingstone have been received at Zanzibar, dated July 2nd, 1872. The Doctor was still at Unyanyembe, in good health, and waiting the arrival of Stanley's second expedition.

THE newly appointed Professor from the Naval Medical Service at Netley, Dr. Macdonald, F.R.S., will, we understand, deliver the introductory lecture at the commencement of the next course of study at that institution.

AT the London International Exhibition of 1873, in Division 2, Class 10, a great variety of surgical instruments will be exhibited. All manufactured objects proposed for exhibition must be delivered on the 11th March, 1873.

WE understand that a vacancy for a junior physician to the West London Hospital will shortly be announced, in consequence of the retirement of Dr. Frederick Simms on account of ill-health.

ON Wednesday morning Haydock Lodge Lunatic Asylum was destroyed by fire, which broke out at five A.M. The inmates were rescued uninjured.

Correspondence.

"Audi alteram partem."

ROYAL MEDICAL BENEVOLENT FUND FOR THE EDUCATION OF ORPHAN DAUGHTERS OF MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—Allow me space in your journal to enlist the serious attention of the members of the medical profession to the fact, that we have no benevolent establishment for the education of the orphan daughters of duly qualified medical men.

Being now on a visit to this charming and healthy town, I find that in addition to its thriving and magnificent colleges for both sexes, and its numerous other schools, a new building is being erected for the reception of the pupils and staff of Cheltenham Ladies College, and that the present college, known as Cambray House, is now for sale; also that the magnificent building, with its handsome dome and capacious apartments, known as the Montpellier Spa, is to be purchased for a very moderate sum of money. In the hope that this may meet the eye and touch the heart of some noble philanthropist, and that he or she may be induced to follow the example of the late excellent founder of the Royal Medical Benevolent College, for the *sons* of medical men, I write this appeal. I had also hoped that a monument for such a purpose would have been erected to commemorate the recovery to health of his Royal Highness the Prince of Wales, and in compliment to the medical profession, who, under Providence, recovered the stranded ship—the Prince of Wales. The Montpellier Spa would form an elegant and commodious national monument worthy of the name of the Princess of Wales's College, for the bereaved and the needy daughters of professional men generally, including those of the army and navy. The orphans of the medical profession, to be supported exclusively by this charity to the number of 50; and about 150 or 200 others could be received at a moderate cost, as in that now thriving college for the sons of our profession at Epsom.

The pupils at the proposed college would have to be boarded at houses provided for that purpose; many such are obtainable here in every direction, and at very low rents.

If such a college be conducted on the same principles as that for the daughters of clergymen, or that on Epsom downs for our sons, it would do honour to our profession by educating our girls, and allowing them the same chances in the battle of life as their more fortunate brothers.

There is also another plan of accomplishing the education of the orphan daughters of medical men, by collecting a fund, which may be designated The Royal Medical Benevolent Fund, for the education of the orphan daughters of medical men, or the daughters of those incapacitated by age or infirmity. With such a fund we could scatter our daughters amongst the well-established schools throughout this country; such as those excellent establishments known as the Queen's College in Harley-street, London, the Cheltenham Ladies College, and other similar schools. Either of the above systems would, in my opinion and in the opinion of others, be better than congregating boys or girls together, being the offspring of one profession only. I have herein suggested two plans for a very much required charity for the consideration of the members of our noble profession, and for the support of a generous public, largely indebted to our profession for their gratuitous services at home and abroad, at our hospitals, infirmaries, dispensaries, &c.

That a loyal and grateful country may respond liberally to this appeal is the urgent prayer, Mr. Editor, of

Yours faithfully,

WM. DALTON, M.R.C.P. and F.R.C.S.

Cheltenham, Sept. 14th, 1872.

FOREIGN DEGREES IN THE MEDICAL DIRECTORY.

To the Editor of THE LANCET.

SIR,—In the autumn of last year the traffic in foreign degrees had attained proportions which demanded from us a prompt effort for its discouragement. It was obviously our duty not to admit to the Directory degrees procured solely by purchase, and we had to discover what means we possessed of distinguishing degrees of that character from those obtained after due examination. Our resources in this respect were found to be inadequate, and we were compelled to have recourse to the regulation adopted by the Medical Council. This regulation falls harshly on those whose foreign degrees have been honourably gained, and with a view to its modification we have this year communicated with several foreign universities; but as we have received responses from a few only, our power of detecting the "bogus" degree still remains imperfect. We are, however, desirous of giving insertion to foreign degrees in Medicine and Surgery fairly obtained, and they will in future be inserted in the Directory under *any one* of the following conditions:—

1. That the degree *is registered* under the Medical Act; or
2. That the possessor has qualified in Great Britain or Ireland and *is practising abroad*; or
3. That the holder of the degree has also a British qualification, and that his *possession of the foreign diploma and its attainment by examination have been certified* to the Editors of the Medical Directory by two registered practitioners not themselves possessing foreign degrees.

Forms of certificate for Condition 3 will be supplied on application.

FORM OF CERTIFICATE.

To the Editors of the Medical Directory.

Gentlemen,—We hereby certify that we have seen the diploma of obtained by of at the University of in the year , and that our knowledge of Dr. induces us to give full credence to his statement that he obtained the diploma after presenting himself at the above-named university, and there passing an examination as stringent as that of British licensing bodies.

Signed, { Name / Address / Registered qualifications* / Name / Address / Registered qualifications*

Dated this day of , 18 .

Requesting your insertion of the above,

We are, Sir, your obedient servants,

THE EDITORS OF THE MEDICAL DIRECTORY.

New Burlington-street, Sept. 1872.

* The qualifications of the signatories as they appear on the Medical Register must be stated for the purpose of identification.

TYPHOID FEVER IN INDIA.

To the Editor of THE LANCET.

SIR,—At page 332 of THE LANCET of September 7th, Dr. De Renzy, writing of India, says:—"The fever deaths appear in the returns under the head of continued and remittent fever, but it is at last pretty clearly made out that three-fourths of them at least are genuine typhoid."

It would be interesting to the profession to know the clinical observers on whose authority this remarkable statement is made. I am aware that in statistical writings ideas of this kind have been expressed; but surely medical science has not come to this pass in India, that questions of pure observation are settled by the manipulation of figures of varying quality, and the ideas which these may suggest to minds in the Presidency bureaux. What medicine now wants in India is the restriction of statistics to its own very useful domain, less speculative reporting on, and more intelligent clinical observing of, disease.

I am, Sir, your obedient servant,

Edinburgh, September 7th, 1872. C. MORRHEAD, M.D.

THE PUBLIC HEALTH ACT.

To the Editor of THE LANCET.

SIR,—I beg to acknowledge the replies of the Poor-law medical officers who have so kindly responded to my appeal. Though I cannot come up to Dr. Rumsey in numbers, I can, with satisfaction, state that five-sixths of the answers were in favour of Mr. Stansfeld's clause, and these answers were all from Poor-law medical officers.

I am still quite at a loss to account for Dr. Rumsey's opposition to so great a step in advance to the "Poor-law Service," considering (as I have always thought) that he was in favour of consolidation of appointments, and giving to those who do the work the credit and remuneration, which conditions I consider Mr. Stansfeld's Bill proposes to carry out.

I am, Sir, yours truly,

September, 1872. J. WICKHAM BARNES.

THE AUTUMN CAMPAIGN.

(From our own Correspondent.)

Camp, 1st Division, near Amesbury, September 11th, 1872.

HARD indeed the work has been of late—constant marching all day long, and long intervals between the breakfast early in the morning, and dinner generally not before evening—though during the last few days a piece of cheese has been issued to and carried by the men,—with very little water, for water is extremely scarce on these downs, streams being few and far between, and wells not abundant. It is, however, no doubt very beneficial to the men not to allow the water-carts to accompany regiments on the march, for during a hot and long day it would cause falling out of the ranks to an extent much greater than now. When undergoing strong fatigue the drinking of water frequently causes an intolerable craving for more, and an unquenchable thirst, incapacitating the men to a very great extent from bearing long marches. These marches, besides, have been especially fatiguing, nearly always across a country of successions of hills, steep, and covered to some extent, certainly, with elastic turf, but plentifully sprinkled with stubble and ploughed fields.

And now, after all this marching and counter-marching, fighting the most fearful battles, in which nobody would, if real, have escaped with life—battles in which impossible feats of arms were constantly accomplished with little or no difficulty,—after our thorough wettings and our nights in damp beds and dripping tents, what has been the effect of all these adverse circumstances on the health of this our magnificent force? Excluding a number of men who ought never to have been brought here in the various regiments, and who have been disposed of as totally unfit to undergo the fatigues of a march, the cases of sickness ascribable purely to our life in camp have been extraordinarily small. At the present moment there are probably not more than thirty patients in the three field hospitals of this division; no serious cases, all of a trivial nature, and simply admitted because the men were unable, from slight sprains, bruises, &c., to accompany their regiments on the march, and had to be carried in the ambulances. About fifty or sixty men have been sent to Netley; but, excepting a few grave cases, such as acute rheumatism, chest affections, and one or two severe sprains, the patients sent to the reserve hospital have been worn out by chronic ailments, diseases which had been in their constitutions for years, and now brought out when these were put to the test; and, above all, a certain class of diseases brought with the men not well curable in tents. Venereal disease caused the largest number of admissions; accidents of all kinds—kicks, sprains, &c.—the next. These two classes almost complete the total admissions, the small balance being cases of diarrhœa, slight in their nature and easily curable, and chest affections, tonsillitis, and chronic eye diseases.

In my last letter I said that the distance of Netley would increase as we marched northward. This was wrong, for now the railway communication is much more direct, and, instead of being further from our reserve hospital, we are really much closer to it.

Our rations of beef and bread have during the last week been varied twice, much to everybody's dislike, by salt pork and biscuits. It seems extraordinary that here in England this should have been found necessary. Once certainly there was an excuse for the Control, for the entire meat supply became tainted; but yesterday I am afraid no such reason can be given. The pork is, no doubt, the best procurable, but to make it easy of digestion it requires twenty-four hours' soaking in water, which, of course, here is not feasible, when the ration passes from the barrel immediately into the stewpot. We have no such thing as diet in hospital, the patients eating their rations if well enough, beef-tea or arrowroot from the panniers if not. I forgot to mention that during a severe thunderstorm on the night of the 3rd a guardsman on sentry was struck down by lightning. He remained unconscious until found by the sergeant, and complained of nothing but a slight headache afterwards. On Sunday last the men all rushed down to the river Wiley, which we, as invaders, had crossed the day before, to wash off the dust and dirt of many a march, for water had been very scarce, and opportunities for bathing none.

September 14th.

Our campaign is ended. The contending armies, now again friends, are on the way to their various quarters, and scattering rapidly in all directions. There will hardly be any man, officer or soldier, who will not return to his barracks in better health than when he left them to take his share in the mimic warfare, hardly anybody whose constitution, unless previously undermined by disease, will not have become strengthened and more able and fit to bear those duties which the country is ever likely to require of its servants. And now that the campaign has so satisfactorily terminated, perhaps I may be allowed to make a few remarks on the medical arrangements of the two armies, how they answered, and also to hint at certain alterations for the better my own ideas and those of others suggested when visiting the camps. In a former letter I have already called your attention to the fact that last year a field hospital was attached to each brigade, which seems greatly preferable to the present system of giving three hospitals to a division, and treating men in them totally irrespective of the brigade they may belong to. I then suggested that the senior surgeon of the three regiments in the brigade should take charge of the field hospital, the two assistant-surgeons being detached from the two other regiments, leaving the surgeons with them. Then the patients would in every hospital be treated by their own medical officers, no doubt a great advantage to both, and not, as during this campaign, by total strangers. Of course this arrangement would not hold good during actual warfare. Then no corps could be without two medical officers, though the exigencies of the service would not permit any fixed rule to be adhered to. To go further, would it not be a good plan to detach from each regiment two or three suitable men to their brigade hospital as orderlies, thus teaching them their

work by allowing them to attend on their brother soldiers, a good opportunity fitting them to perform a similar duty when occasion might require it. The other staff of the field hospitals had, perhaps, better remain as it is, though complaints have been heard of the inefficiency of some of these army hospital corps men.

Unlike real warfare as the late campaign has been in every way, I think it would have been greatly to the advantage of the patients to have allowed the field hospitals to remain standing as long as possible, instead of striking them at *réveille* with the other tents, putting the men into ambulances, where they remained, especially during the last week, the whole day, packed together and unable to attend to their wants, with the next camping ground, known well beforehand, only five or six miles distant. If the hospitals are always to accompany the baggage, it seems expedient to leave a reserve marquee behind, whence the patients may be either transferred to Netley or brought on afterwards. During a short campaign, as this has been, it seems absurd to carry men about daily whose cure must of necessity extend over a period longer than that fixed for the troops to be out, especially as the constant knocking about is not likely to aid in the recovery of health.

The field panniers, I hear, did not contain a supply of medicines sufficient in quantity or variety for the proper treatment of the sick, such as were admitted into the field hospital—classes of diseases which would, however, probably never be met with on real service. Why not have medicine carts such as those in the Prussian service? We might further imitate our German friends by adding to the kit of each soldier the triangular bandage, which has proved its great value during the late continental wars, and with the many uses of which everybody should, as soon as possible, be acquainted.

The medical field companion is altogether too clumsy an affair for a man to carry, either mounted or on foot; the contents might easily be arranged in a series of pockets attached to a waist-belt, or in the shape of a valise for cavalry.

BIRMINGHAM.

(*From our own Correspondent.*)

THE health of the town is not good, diarrhœa having swelled the mortality returns considerably during the last few weeks. Small-pox is decreasing; though it still contributes about fifty patients to the special wards at the workhouse, the guardians have, in a niggardly spirit, reduced the salary of Mr. Burton, who has efficiently and satisfactorily attended to these patients throughout the epidemic, from four to three guineas a week. At Walsall the epidemic has so nearly disappeared that a proposition has been made to disinfect the hospital, and convert it, according to its original design, into tramp wards. In Dudley a corresponding improvement is noticeable; there are now 100 cases in the town, while two months ago there were 282. The Local Government Board have again reminded the Council that the water-supply is not what it ought to be, and informed them that if the South Staffordshire Waterworks Company cannot supply sufficient, the Council ought to provide a supplemental quantity for all the houses in the borough.

Mr. Love, the newly-appointed officer of health for Wolverhampton, has presented his first general report on the sanitary condition of that borough. After commenting on the impurity of the atmosphere caused by the 250 chimney-stacks, he says: "Exhalations from the vast open ashpits, containing as they do so much stagnant water and soapsuds, combined with want of cleanliness on the part of the poor, give rise to that amount of fever which is continually to be found in their dwellings. Another great cause of impurity of the atmosphere is due in a great measure to the keeping of pigs, and the length of time the contents of the cesspools have been allowed to accumulate." In spite of all these drawbacks, the death-rate is very low, being only 14 in the 1000. It must not, however, be forgotten that during the recent epidemic of small-pox, 6000 persons were attacked, of whom 407 died, and that the direct cost to the borough has not been less than £2000.

After the long vacation, preparations are being pushed forward for the coming session at Queen's College and at the General and Queen's Hospitals. The new out-patient department of the Queen's Hospital is rapidly approaching completion. The recent alterations at the General Hospital will greatly add to the sanitary efficiency. The wards on the upper storey have all been raised, and their ventilation improved. A new operating theatre has also been built, which is well lighted and commodiously arranged.

Ovariotomy has been performed twice recently at the Women's Hospital. In Mr. Ross Jordan's case the cyst was unilocular, but the contents thick and gelatinous, and there were numerous adhesions, necessitating a considerable incision. The patient, aged 32, died from peritonitis on the fifth day. Dr. Savage's patient was aged 22, and had a large multilocular cyst, with solid contents, and there were no adhesions. The patient was well and able to walk about on the fourteenth day. Spencer Wells's clamp was used in both instances.

The half-yearly meeting of the Governors of the South Staffordshire General Hospital was held on the 10th inst., when the question of changing the name of the institution was raised, and it was recommended by Dr. Millington that it should in future be called the Wolverhampton and Staffordshire General Hospital. As there are now several hospitals in South Staffordshire, as at Walsall, Dudley, and West Bromwich, it seems desirable to make the proposed change, so as to definitely indicate the position of this institution. The new fever wards are completed, but the funds for their erection are not at present forthcoming. The Working Men's Committee promised £1500, but of that sum only £500 have yet been received. The suggestion of Mr. Kettle, that a certain Saturday should be set apart for a simultaneous working class hospital collection in the various works throughout the district, is a valuable one, and would doubtless soon relieve the Governors from their financial difficulties.

Birmingham, Sept. 16th, 1872.

ABERDEEN.

(*From our own Correspondent.*)

THE epidemic of small-pox, with which, in common with most large towns throughout the country, we have been visited, seems now to have almost entirely subsided; and as its duration has been comparatively short, we have, on the whole, escaped very easily. Its course forms a sort of epitome of the usual run of an introduced epidemic. The first case occurred in April last year, being imported directly from one of the English seaport towns where the disease was raging. This case formed the nucleus of a small group of cases—persons who had been directly in contact with the primary one; but these secondary cases did not spread the disease farther, and it then died out. The same thing occurred again and again throughout the summer and autumn, an imported case producing a series of secondary cases, and the affection dying out with these, till near the end of the year, when the secondary cases began to produce tertiary ones, and then the epidemic obtained a firm hold on the town, and spread rapidly over it. December, January, and February were the most serious months, and then the epidemic began to dwindle, and by the end of April its force seemed entirely spent, although it has lingered on in a few stray cases almost to the present time. Revaccination has been freely practised, both before and during the epidemic; but notwithstanding this precaution it has undoubtedly been the severest outbreak that has occurred during this generation. During the last thirty years, the following attacks of small-pox have occurred:—1841-2, culminating in 1843, and then rapidly subsiding; 1846, and the two following years; 1852 and 1853, extending partially into the next year; 1856 and part of the succeeding year; the three years 1859 to 1861, chiefly, however, in 1860; and 1863 and 1864, nearly simultaneous with an outbreak of typhus. In none of these attacks, however, has the force of the epidemic, as shown by the number of cases and of deaths, been so great as in the recent one, short though its duration has

been. In the epidemic of 1860, the number of deaths recorded is 71, spread over great part of three years; and in that of 1863–4, 113 deaths occurred in the whole two years; but in the recent epidemic 140 deaths occurred in the six months, December to May, and 163 in all since April last year. No doubt these figures are small compared with the mortality in many other places, but taken in connexion they show that the short recent epidemic is the most severe by far that has appeared in this town for a long period. The ratio of mortality in those cases treated in hospital has been about 18½ per cent.—greatest at first and gradually dwindling, and in this respect there does not seem to have been much difference between the present and previous epidemics. But of the total number of deaths, only about a third occurred in hospital, and two-thirds in the town generally, and this ratio may probably be fairly assumed as the proportion of cases as well as of deaths. On this assumption the total number of cases would be about 900, or about 1 per cent. of the whole population. The comparatively small number treated in hospital is probably to be accounted for on two grounds—first, that in such cases many of the poorer class have a great reluctance to allow themselves and their relatives to be removed to hospital; and, second, that many of those attacked were in a social position above the class that are usually hospital inmates. There can be little doubt also that these circumstances helped to facilitate the rapid spread of the disease, especially if we take into account the recklessness with which many who were convalescent or had but slight attacks went about while still in a condition to propagate contagion.

Our hospital arrangements to meet the epidemic were a capital illustration of what so frequently happens in similar cases—first indifference, then haste and panic, resulting in the end in an expenditure of money considerably beyond what might have sufficed had the whole been gone carefully and deliberately about. At first no preparation whatever was made, and the cases that occurred were accommodated in the ordinary fever wards of the infirmary. As autumn drew on, and the prospect looked more gloomy, warning was given more than once that the accommodation was utterly inadequate to meet an epidemic, which was probably at hand. The close of the year brought the full force of the epidemic upon us, without any preparation having been made. Then came rushing in hot haste to find a place and get up a small-pox hospital. With some little difficulty one was improvised by the local authorities, but although undoubtedly it was the best—in fact, almost the only one that could be obtained at the time, yet neither site nor building was free from serious objections, and there is but little probability that it will be capable of being turned to permanent account as an epidemic hospital. The total cost of this hospital (which has been little more than six months in operation, and is now closed) has not yet been made public, but it is pretty well known that the bill will be a heavy one, and the ratepayers will find to their cost that the most expensive mode of meeting an epidemic is to trust to temporary makeshifts hastily got up in the hour of need.

BORDEAUX.

(From an occasional Correspondent.)

SESSION OF THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE first or inaugural meeting of the French Association for the Advancement of Science has been extremely successful, not only on account of the great number of French and foreign *savants* who gathered on the occasion, and the importance of the various communications and papers which were brought forward, but also from the general interest which it has excited here and throughout all France, the great number of pleasant and scientific excursions which were made in connexion with the gathering, and last, though not least, the splendid hospitality offered to the visitors by the town of Bordeaux.

I must be as brief as possible in my description of the proceedings of the Association, and content myself with giving you only the chief outlines of the session, so as not to take up too much of your valuable space; I shall therefore be compelled to pass over many details which otherwise it would have been interesting or pleasing to relate.

The session opened on Thursday, the 5th instant; but on the 4th a great number of visitors had already arrived here, and met in the large concert-hall of the Bordeaux Theatre, which had been kindly lent to the Association for the occasion.

On Wednesday, at 10 A.M., the first meeting took place at the large professional School of St. Sernin, a building admirably adapted for the purposes of the meeting. Among the visitors who were to be seen greeting each other in the lobby previous to the business of the day, were noticed Quatrefages, Pouchet, Respighi, Wurtz, Bouillaud, Gintrac, Broca, Balard, Larrey, Pasteur, Baillon, Soret, &c.

At 11 A.M. the different sections (eleven in number) met in order to elect their respective boards. Dr. Bouillaud was chosen president of the Medical Section, Dr. Balard that of Chemistry, Soubeyran that of Zoology, and Broca that of Anthropology.

At 2 P.M. the first general meeting took place, when, in the presence of a full attendance (400 members I should say, with a goodly sprinkling of ladies), M. Quatrefages took possession of the chair (in the absence of Claude Bernard, who is unwell), with Generals Aurelles de Paladine and Bourdillion, Fourcand, Mayor of Bordeaux, F. Duval, the Prefect, the Councillors-General of the Department, and other notabilities around him. The President, in an able speech, declared the session opened. He explained the object, prospects, and hopes of the Association, and dwelt on the advantages of science for all the pursuits and purposes of life. He read two letters from the International Congress of Anthropology of Brussels and the Congress of Russian Naturalists at Moscow, both congratulating the Association on its first meeting.

M. Fourcand followed with a very good speech, in which he bade the Association a hearty welcome to Bordeaux.

M. Cornu, Professor at the Polytechnic School, and general secretary to the Association, and M. Masson, treasurer-general, next expatiated on the success which had marked the beginnings of the Association. It now numbers 800 members, and commands a pretty large amount of money.

At 8 P.M. a large crowd met again in the same hall, to listen to Professor Broca's lecture on the Troglodites of Eyzies—in other words, on the manners of the fossil beings whose remains were discovered a short time ago on the banks of the Vezere, in the department of Dordogne, near this city. On a large board behind the lecturer the outlines of the various localities about to be described were chalked out; whilst on a large table were placed numerous casts representing the chief objects of art or of human industry found in the caverns, together with the skulls of those who had fabricated them. M. Broca described in lively terms the condition of the Troglodites of Eyzies — how they battled with their contemporaries of the quaternal period, the mammoth, the great bear, the tiger, the hairy rhinoceros, the reindeer, hyena, &c. &c.; how they lived on the produce of hunting and fishing, and wore the skins of animals; how in certain localities (Langerie, la Madaleine, &c.) they had arms which present a certain degree of perfection (hatchets cut out of silex, &c.). In some of the caverns, numerous specimens of bones, sculptured or bearing drawings, had been discovered. The skulls of these Troglodites show various indices of ferocity, but do not at all resemble that of the ape. The oval form of the cranium reveals a certain intellectual superiority.

On the morning of the 6th inst. all the sections met at nine in their respective rooms. In the section of Natural Philosophy, M. Lallemand (Dean of the Faculty of Sciences of Poitiers) made a communication on the colouration of air. M. Soret (of Geneva) related his most recent researches on solar radiation. In the Chemical section, the orators of the day were MM. Berthelot, Jungfleisch, Schutzenberger. In the Zoological section, M. Chatin delivered a paper "On the Odorous Glands of various Mammifera"; M. Jobert a paper "On the Organs of Touch in the Fish."

In the Medical section, presided over by Professor Bouillaud, Dr. Ollier, of Lyons, communicated the results of his more recent experiments on the process of growth in

long bones. He supported the theory of peripheric growth, combated by German *savants*, such as Wolff, Culmann, and Meyer. M. Ollier, after having investigated the question of normal growth, turned to that of morbid growth. Already in 1867 he had shown, he said, that irritation of the diaphysis of a long bone excites the elongation of the bone, whereas irritation of the conjugate cartilage brings on an arrest of growth, and that not by the more rapid soldering of the epiphysis, but simply through disturbance of the process of ossification. Clinical facts, he said, had since confirmed these views. Another fact on which M. Ollier laid great stress was the unequal part played by the two conjugate cartilages in the development of bones. The humerus, for instance, grows especially through the upper conjugate cartilage, the ulna and cubitus through the lower cartilage, so that the parts forming the elbow are only of very limited utility in the general development of the upper limb. It is just the reverse with the knee and the bones which form it. He drew attention to the importance of these facts in connexion with the results which are to be expected from articular resections practised on children. Since 1861 he had made known that after resection of the elbow in children the upper limb continues to grow, whereas the lower limb scarcely grows after resection of the knee. The deformity which results from this retardation of development becomes more and more marked as the limb acquires its normal development. M. Ollier said that after resections, just as after certain inflammatory lesions, an increase in length of the affected limb may be sometimes observed. This elongation was not accompanied by hypertrophy of the bone, which, on the contrary, became lighter. He therefore has given the name of atrophic elongation to this sort of growth. M. Ollier explains this anomaly through the diminution of pressure which the bones exert upon each other. The decrease of this pressure induces an atrophic lengthening, as it is easy to observe on the bones of a paralyzed limb, provided we do not wait for that general atrophy which so soon follows functional inertia of the limb.

Dr. Reliquet, of Paris, described a special bed for performing lithotrity, and a lithotrite made by Collin, of Paris, by his directions.

Dr. Papilland, of Sanjon, read a paper "On Variola, Vaccine, and Post-vaccinal Inoculation." The author concludes, from various facts observed in practice, that vaccine, which exerts a sufficiently powerful preservative action in sporadic variola, becomes insufficient in epidemic variola. In the latter revaccination affords neither complete nor certain preservation. Dr. Papillaud advocates variolic inoculation performed after inoculation with vaccine, and calls it, therefore, post-vaccinal inoculation. He believes that it corroborates and achieves the prophylactic action of vaccine, and thus preserves completely from any attack of small-pox.

At two o'clock the general meeting took place, with M. Sas, the eminent Belgian chemist, in the chair.

M. Alphonse Guérin, surgeon to the Hôpital St. Louis, then made a most interesting communication on Transfusion of Blood. After reviewing all that had been written of transfusion of blood, he proceeded to investigate the mechanism of the operation. It was a difficult one. Air might enter the veins, and kill at once. Venous blood had a marked tendency to coagulate, and a mere clot might stop circulation. The blood was previously defibrinated, it was true; but then might not the fibrine be necessary to the tissues? Besides, the heart and lungs, entrusted with elaborating this venous blood, were in a morbid condition. To obviate these difficulties, attempts had been made to put an artery in communication with a vein; but then the blood, being already transformed, reached the lungs quite uselessly, and so the animals died. M. Guérin's plan is to bring artery and artery together. He divides similar arteries in two animals, and by means of an india-rubber tube brings into communication the central end of the artery in the healthy animal with the distal end of the artery of the sick animal. In order to prevent the latter from receiving too much blood, and dying from plethora, M. Guérin connects by a second india-rubber tube the peripheric end of the artery of the healthy animal with the central end of the artery of the dying animal. After some time the two bloods become completely mixed, so that between the two animals there really exists a community of blood. M. Guérin mentioned that in searching among previous documents he had found no relation of experiments like his. Those of Brown-Séquard had consisted in causing the two arteries to communicate by means of a T-shaped tube, which conveyed the blood into the sick animal in a direction opposed to the current of circulation, as well as parallel to it, so that the action of the valves soon ceased, and the beatings of the heart were stopped. All M. Guérin's experiments have hitherto been conducted on animals, and have all been successful. There is no fear of any clot forming; and in respect of the introduction of air, M. Guérin thinks that the small arteries do not permit of such an accident. The tied ends of the arteries fall only after eight or fifteen days. The speaker pointed out the various modifications which the sick organism would undergo if the community of blood were allowed to subsist for that space of time. Alluding to the *modus operandi*, M. Guérin recommended operators to uncover the artery over a rather large extent, and to prevent the blood from returning to the heart by compressing with pincers the artery and its anastomoses.

The proceedings of this general meeting were concluded by remarks from Colonel Laussedat on the utility of the study of geography and the living languages; from l'Abbé Durand on the Indians of the Amazon; from MM. Janssen and Respighi on the total eclipse of the sun, observed in December, 1871.

In my next letter I shall conclude my account of this first session of the French Association with a sketch of the proceedings which took place during the last days of the meeting.

Obituary.

THOMAS HEWLETT, F.R.C.S.

AT Harrow, on the 10th instant, this able, active, and skilful practitioner closed an honourable professional career of forty-six years' standing. Mr. Hewlett, after an excellent preliminary education, pursued his medical studies at St. Thomas's and Guy's, and in 1823 became member of the Royal College of Surgeons, and in the same year Licentiate of the Apothecaries' Company. Shortly thereafter he settled in practice at Harrow-on-the-Hill, and soon rose to be the principal practitioner in the town and district. To the foundation school he was appointed medical adviser, and rendered incalculable service by his skill in diagnosis, his vigilance, and his judicious treatment to successive relays of scholars. He was also union medical officer; and in this capacity, no less than in the former, his clear head and kind heart found congenial exercise. Indefatigable in meeting his engagements, he took an active interest in the science of medicine, and assisted frequently at the discussions of the Medico-Chirurgical Society, of which he was a Fellow. The many calls on his time necessitated his taking as partner Mr. Thomas Bridgwater, M.B. Lond., and in addition to him Morris Tonge, M.D. Cantab. Rarely has a more important *clientèle* been so worthily served as to its sanitary and medical requirements than that of Harrow-on-the-Hill. Much of the prosperity of the school must be ascribed to the skill and watchfulness of the practitioners who were charged with its health. Nor was the town and vicinage under less deep obligations. At the meeting of the Guardians of the Hendon Union, two days after Mr. Hewlett's decease, it was moved by the Rev. L. J. Bernays, seconded by Mr. Hudson, and carried unanimously, that the Board convey to Mrs. Hewlett the expression of their "deep sympathy with her and her family in their severe bereavement, and their strong sense of the loss sustained by the Board and by the poor of Harrow, in the death of a medical officer of so long a standing, and so universally and deservedly respected."

DR. THOMAS BALLE FORSTER, R.N.

DR. FORSTER, after attending the clinical courses of the London Hospital, took the diplomas of the Royal College of Surgeons and the Apothecaries' Company in 1847. Three years later he graduated as Doctor of Medicine at Aberdeen

University. Shortly after taking the first two of these qualifications, he entered the Royal Navy as assistant-surgeon, and served on the Pacific command successively in Her Majesty's ships *Asia*, *Nereus*, and *Dædalus*. In September, 1851, he was engaged in the Polar Seas as medical officer to Her Majesty's discovery ships, *Plover* and *Rattlesnake*, being attached to the latter vessel upwards of three years. In April, 1857, he received the appointment of assistant-surgeon of Her Majesty's dockyard at Keyham, Devonport, and held it until March, 1870, when he retired from active service. He died at Plymouth on August the 20th, in his forty-eighth year.

DR. CHARLES HINGSTON.

THIS accomplished practitioner died at his residence, Seventrees, Plymouth, on the 5th instant, in his sixty-eighth year. He graduated with distinction as Doctor of Medicine at Edinburgh University in 1827. After settling in practice, he became physician to the Plymouth Public Dispensary, and thereafter consulting physician to the South Devon and East Cornwall Hospital. He was greatly respected by a large circle of patients, and leaves honourable representatives of the family name in Dr. Charles A. Hingston, also of Plymouth, Mr. J. Tregelles Hingston, of York, and Mr. Andrew Hingston, of Liskeard, Cornwall.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 5th and 12th instant:—

Barrow, Frederick William, Peterborough.
Cæsar, Charles Augustus, Bow-road.
Giffard, Douglas William, Guernsey.
Rutherford, William, Ballinasloe, Ireland.
Staines, John Francis, Southampton-row.

As Assistants in Compounding and Dispensing Medicines:—

Bisson, Philip Nicholas, Jersey.
Burgess, Wallett James, Duke-street, Portland-place.

On Sept. 5th the following gentlemen passed their First Professional Examination:—

Henry Evans, Guy's Hospital; Henry Jackson, Middlesex Hospital.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At the last meeting of this Society, the following gentlemen were elected office-bearers for the session 1872–73—viz., President: Dr. Robert Scott Orr. Vice-Presidents: Dr. Geo. Buchanan, Dr. Andrew Fergus. Council: Dr. James Gray, Mr. Robert Grieve, Mr. J. Pollock (Mearns), Dr. R. Renfrew, Dr. George Miller, Dr. T. D. Buchanan, Dr. R. Stewart (Coatbridge), Dr. James Scanlan. Secretaries: Dr. Robert Perry, Dr. Alex. Robertson. Treasurer: Dr. H. R. Howatt.

LAST week, at a meeting of the Guardians of the South Dublin Union, it was unanimously resolved that the medical officers of the union, in consideration of their exertions during the small-pox epidemic, shall receive a sum of £20 each as a small recognition of their extra services during that period.

Medical Appointments.

BERRY, W., L.R.C.P.Ed., L.R.C.S.E., has been appointed House-Surgeon to the Infirmary and Dispensary, Lancaster, vice R. Atkinson, M.R.C.S.E., whose appointment has expired.

BONTHRON, C. C., L.R.C.S.Ed., has been appointed Medical Officer for the Eastern Division of the Parish of Wemyss, Fifeshire.

BRIGGS, G. C., M.R.C.S.E., has been appointed Resident Medical Officer to the St. Pancras and Northern Dispensary, vice Lewis Lewis, M.R.C.S.E., L.R.C.P., resigned.

BURGESS, E. A., M.R.C.S.E., has been appointed a Resident House-Surgeon to the Brighton and Hove Dispensary, vice H. G. Turner, M.R.C.S.E., resigned.

CARSON, S., L.R.C.P.Ed., L.M., has been elected Medical Officer for District No. 2 of the Alston with Garrigill Parish, Cumberland, vice Geo. H. Savage, M.D., L.R.C.P.L., appointed Assistant Medical Officer to the Bethlehem Royal Hospital for Lunatics.

CLARKE, J. L., M.D., M.R.C.P.L., F.R.S., has been appointed Consulting Physician to the Provident Medical Institution and Lying-in Charity, Pimlico-road, vice C. J. B. Aldis, M.D., F.R.C.P.L., deceased.

COOKE, J., L.K.Q.C.P.I., L.M., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Rocester District of the Uttoxeter Union, Staffordshire, vice J. Mac Kenzie, M.R.C.S.E.

DAVIES, J., M.D., has been re-elected Medical Officer and Public Vaccinator for the Llangonnyd District of the Neath Union, Glamorganshire.

GOODWIN, J. W., M.D., has been appointed Consulting Physician to the Suffolk General Hospital, Bury St. Edmund's, on resigning as Physician.

GORDON, J. H., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for District No. 3 of the Alderbury Union, Wilts, vice Wm. Lait, M.R.C.S.E., resigned.

HADDEN, E., L.K.Q.C.P.I., has been appointed Parochial Medical Officer for Aberfoyle, Perthshire.

HOLLAND, Dr. (of Manchester), has been appointed Medical Officer and Public Vaccinator for the Silsoe District of the Ampthill Union, vice Dr. A. R. Lee, resigned.

IRWIN, T. T., L.R.C.S.I., L.M., L.K.Q.C.P.I., has been appointed Junior Resident Medical Officer to the Royal Free Hospital, Gray's-inn-road, vice Vores, whose appointment has expired.

KEMPE, C. M., M.R.C.S.E., has been appointed Medical Officer of Health for Shoreham.

KINGSFORD, E., F.R.C.S.E., has been appointed Medical Officer to the West London District School, Ashford.

LAMBERT, Mr. J., has been appointed a Resident Medical Officer to the General Infirmary, Leeds, vice Mawson, resigned.

M'PHERSON, R., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Arncliffe District of the Settle Union, Yorkshire, vice W. Terry, M.R.C.S.E., resigned.

MATTHEW, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Parish of Kinross.

NIXON, C. J., L.K.Q.C.P.I., L.R.C.S.I., late Assistant-Physician, has been appointed a Physician to the Mater Misericordiæ Hospital, Dublin, vice H. Curran, L.K.Q.C.P.I., L.M., L.R.C.S.I., deceased.

O'FARRELL, Dr. J. P., has been appointed House-Surgeon to the Seamen's Hospital, Greenwich, vice Dr. W. Swan.

O'NEILL, J. P., L.K.Q.C.P.I., L.R.C.S.I., has been appointed an Attending Medical Officer to the Provident Medical Institution and Lying-in Charity, Pimlico-road, vice C. Bevies, M.D., M.R.C.S.E., resigned.

SMITHIES, J. J., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed Medical Officer and Public Vaccinator for the Gisburn and Slaidburn Districts of the Clitheroe Union, Lancashire, vice T. D. Jackso., M.R.C.S.E., deceased.

TODD, W. J., L.R.C.P.I., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the North Petherton or No. 9 District of the Bridgwater Union, vice W. A. Summers, M.R.C.S.E., L.M., resigned, and since deceased.

WARD, J. B., M.D., Senior Assistant Medical Officer, Warwick County Lunatic Asylum, has been appointed Resident Medical Superintendent of the Warneford Lunatic Asylum, Oxford, vice Thomas Allen, L.R.C.S.Ed., M.R.C.S.E., resigned.

WATSON, E. A., M.D., has been appointed Medical Officer for the Western Division of the Parish of Wemyss.

WOODMAN, W. B., M.D., M.R.C.P.L., has been appointed a Physician to the London Dispensary, Church-street, Spitalfields, vice C. J. B. Aldis, M.D., deceased; and a Member of the Court of Examiners of the Society of Apothecaries, London.

WOOTON, H., M.R.C.S.E., has been appointed Medical Officer for the Bingham District and the Workhouse of the Bingham Union, Nottinghamshire, vice C. Rowland, M.R.C.S.E., resigned.

YOUNG, A., L.R.C.P., M.R.C.S.E., has been appointed House-Surgeon to the Great Northern Hospital, vice T. Allen, L.R.C.P.L., resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARRACLOUGH.—On the 6th inst., at Dulwich-road, the wife of R. W. Sutton Barraclough, L.R.C.P.L., of a daughter.

ELLIOTT.—On the 9th inst., at Chichester, the wife of George H. Elliott, M.R.C.S.E., of a daughter.

GREENWOOD.—On the 14th inst., at Penryn, the wife of Dr. N. Greenwood, of a son.

M'VITTIE.—On the 28th of July, at Jaulna, Deccan, the wife of Assistant-Surgeon C. E. M'Vittie, 1st Regt. of H.C., of a son.

MEAD.—On the 16th inst., at Christchurch, Hants, the wife of H. T. Harvey Mead, M.R.C.S.E., of a son.

WOODCOCK.—On the 16th inst., at Stretford-road, Manchester, the wife of Sam Woodcock, L.R.C.P., of a daughter.

MARRIAGES.

BRISBANE—NESS.—On the 17th inst., at the English Presbyterian Church, St. John's-wood, James Brisbane, M.D., of Lisson-grove, to Helen Sharp, eldest daughter of the late Alexander Ness, of Sinclairtown, Kirkaldy, N.B.—No Cards.

O'LEARY—CARROLL.—On the 10th inst., at the Church of SS. Peter and Paul, W. P. O'Leary, M.D., of Castlelishen, Charleville, to Margaret Mary, daughter of Patrick Carroll, Esq., of Killacolla House, County Limerick.

WILL—THOMSON.—On the 4th inst., at Trinity Church, Edinburgh, John Charles Ogilvie Will, M.D., of Aberdeen, to Christina, only surviving daughter of the late William Thomson, Esq., Solicitor, Factor to Sir James Colquhoun, Bart., of that Ilk and Luss.

DEATHS.

CUTHBERTSON.—On the 21st of July, at Landour, India, R. A. Cuthbertson, L.K.Q.C.P.I., Assistant-Surgeon 65th Regiment.

EVERS.—On the 15th inst., at Scarborough, Charles Evers, M.D., late of Grassendale, near Liverpool.

GRANT.—On the 11th inst., Dr. Alex. Grant, of Aberdeen.

HARRIS.—On the 31st ult., Thomas Harris, M.R.C.S.E., of Wardington, Oxfordshire, aged 78.

ROBINSON.—On the 1st inst., at Coxwold, Yorkshire, John Craven Robinson, L.R.C.P.Ed., M.R.C.S.E., of Torquay, aged 34.

TYERMAN.—On the 29th of June, at Marion, Wellington, New Zealand, Daniel Fletcher Tyerman, M.R.C.S.E., formerly Medical Officer at the Middlesex County Lunatic Asylum, Colney-hatch (Student at Guy's Hospital), aged 62.

Medical Diary of the Week.

Monday, Sept. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 24.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2 P.M.
CANCER HOSPITAL.—Operations, 3 P.M.

Thursday, Sept. 26.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Friday, Sept. 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB. — 8 P.M. Mr. John E. Ingpen: "Description of a new Standard Dynamometer for determining the power of Microscopic Objectives."—Mr. D. E. Goddard, "On Comparative Study."

Saturday, Sept. 28.

HOSPITAL FOR WOMEN, Soho-square.—Operations, 9½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, and Answers to Correspondents.

AN ENGLISH "VIGILANCE COMMITTEE."

WE have received a curious document, purporting to be a memorial of the Executive Committee of the Vigilance Association for the Defence of Personal Rights, addressed to the Right Hon. W. E. Gladstone, M.P., First Lord of Her Majesty's Treasury. The document does not set forth of whom the Association or the Committee is composed, and bears the signature only of an honorary secretary, who dates from no less venerable a place than Trinity College, Cambridge. It commences by stating several truisms, and then proceeds to advance a variety of conclusions which in no way arise out of them. Taken generally, the aim of the memorial seems to be the complete establishment in England of a state of things which most people think we already approach too nearly, but of which the only perfect example was furnished by the Israelites of old, at that period of their history when every man did that which was right in the sight of his own eyes. Nearly all laws, it appears, and especially all laws bearing upon criminals, are unjustifiable infringements of personal liberty; and the Vigilance Committee, if they could fully carry out their desires, would probably hang detectives, tar and feather ordinary policemen, and cause the Home Secretary to ride upon a rail. As far as we can judge, the silly document to which we refer is in reality an offshoot of the opposition to the Contagious Diseases Acts, and is intended to condemn those Acts, among others, on the imposing basis of an appeal to first principles and immutable logic. We wish the members of the Vigilance Committee better employment and more sense, and hope that if they issue any more memorials, they will at least not think it necessary to send copies of them to THE LANCET.

L. K. (North London) will find the information he requires in the advertising sheets of foreign medical journals.

P. C. S.—Our correspondent may appeal in the matter.

THE LOST DR. LEICHHARDT.

MOURNFUL as the fate of La Perouse or Sir John Franklin, seems that of Dr. Leichhardt, who, after an absence in the wilds of Australia much longer than that of Dr. Livingstone in Central Africa, has had no Stanley to unshroud him from the mystery of his fate. Mr. D. Bunce, Curator of the Geelong Botanical Gardens, died on Tuesday, the 2nd of July, and the record of his career recalls the chief episodes in the life of the great German explorer. Mr. Bunce, after studying botany under Sir William Jackson Hooker at Kew, and filling the post of Botanist to the Government of Tasmania, became connected as naturalist with the exploring expedition of Dr. Ludwig Leichhardt. In that capacity he collected upwards of a thousand plants, medicinal and other, with, when possible, their specimen papers in triplicate, among them being some new genera, species, and varieties. He left Melbourne in September, 1846, and after a six days' voyage reached Sydney, and there joined Dr. Leichhardt. The party left Sydney a day or two afterwards, and did not return till the 5th July of the following year, by which time Dr. Leichhardt had put himself in full possession of the results of Sir Thomas Mitchell's expedition. On the 9th of August, notwithstanding the many hardships of the previous enterprise, Mr. Bunce again started in company with the indefatigable doctor, who, in his account of the trip from Russell's station to the west of Darling Downs, thanks Mr. Bunce for his assistance, and for the fine collection of plants and seeds made by him. The last and, it is too plausibly surmised, fatal expedition of the doctor, Mr. Bunce did not accompany, but made an excursion of his own towards Wide Bay and Port Curtis, subsequently reaching St. Kilda after a three years' absence. Having recruited himself, Mr. Bunce made fresh explorations, but nowhere alighted on the trail of poor Leichhardt, whose fate, mysterious as it is, will long be remembered among the martyrdoms of science in behoof of humanity.

Old Lignum.—We think it would be inexpedient to seek or expect remuneration. Such services are not rendered to the individual so much as to the profession, and they should be reciprocal among all its members.

A. M. D.—Apply to the Director-General, 6, Whitehall-yard.

ADMINISTRATION OF FOOD THROUGH THE NOSTRIL.

To the Editor of THE LANCET.

SIR,—I have often thought food might be administered through the nostrils with less trouble to the surgeon and greater ease to the patient than by the method with the stomach-pump through the mouth. There are some cases of scarlet fever in which this method, I think, may be very useful; and as your columns are now slightly ventilating the subject, I venture to remark that at different times in the wards of the Fever Hospital connected with the Manchester Workhouse Hospital I have had recourse to this plan of feeding patients suffering from scarlet fever when the tonsils and parotid glands have been so much inflamed and enlarged as to render deglutition most difficult, if not impossible. In such cases I have taken a gum-elastic catheter, to one end of which I fitted a piece of caoutchouc tubing about two feet in length, such as is ordinarily used for children's feeding-bottles, the other end of the tubing being fitted to a funnel. I then instructed the nurse how to pass the catheter along the floor of the nose into the pharynx, the nurse then having nothing to do but gently pour the beef-tea, milk, or other aliment into the funnel. I have had scarlet-fever cases fed in this manner with both ease and benefit to themselves; at the same time, however, I had the mouth and throat kept moist by administering frequently a teaspoonful or two of cold water by the mouth. I have also had a typhus patient fed in this manner, who violently resisted the administration of food by the mouth, and persistently spat it out when given.

I am, Sir, yours truly,

Manchester, Sept. 9th, 1872. JOSEPH WESTMORLAND.

To the Editor of THE LANCET.

SIR,—I regret to inform Dr. Humble, through your columns, that his suggestion for feeding the insane, &c., through the nostrils is by no means new, though it may be original. It has been practised for many years in metropolitan hospitals. I should suppose all medical men who have been house-surgeons are well cognisant of the method. I may also state that the spout of an ordinary jug will serve the purpose equally well.

Your obedient servant,

J. ROCHE LYNCH, L.R.C.P. Lond.

Chepstow-villas, Kensington-park, Sept. 1872.

SCIENCE IN ROME.

THE Roman Municipality is encouraging science in all its branches. To remind the Italian students of the advantages they live under as contrasted with the hard lot of their predecessors, it has decreed that in front of the Palace of the French Academy a table with the following inscription should be placed:—

Questo fù luogo di prigione
a Galileo Galilei
Reo d'aver veduto la terra
Volgersi intorno al Sole.
S. P. Q. R.
1872.

WE are asked to contradict a report which has been extensively circulated, that Sir Alexander Taylor, M.D., of Pau, Pyrénées, has retired from practice there. He intends to be at his post early in October, and during his stay in England for the next three weeks will be ready to receive any communications connected with Pau through his publishers, Messrs. J. and A. Churchill, New Burlington-street.

Mr. Milward is thanked for his communication, which, however, is not suited for THE LANCET.

W. L. should consult a respectable practitioner in his own neighbourhood.

BALMFORTH v. BUCKLEY AND FLETCHER.

WE have received a communication from the plaintiff's attorney, complaining that, while applications for new trials are pending in both cases, letters and comments should have appeared on the subject, and hoping that the opinion of ourselves and our readers may not be influenced by what has been written, as the cases may again be submitted to a jury.

"TRY SHETLAND."

Mr. W. R. S. Jefferiss, M.B., C.M. Edin., writes to us in corroboration of an article which we lately wrote, entitled "Try Shetland." Orkney, which was also included in our recommendation, has been the health-resort of Mr. Jefferiss for more than two months, and he "can heartily endorse all that was said in its favour." The islands are not, however, so easy of access as we thought. The steamboat fares between Granton and Kirkwall are high; the ventilation of most of the vessels is bad, so bad, indeed, as, in Mr. Jefferiss's opinion, to be absolutely poisonous for the phthisical; and the attendance on board by no means characterised by polite language. Mr. Jefferiss sends us cuttings from the Scotch journals confirmatory of his experience—cuttings consisting of reports of police cases, in which the servants of the Aberdeen, Leith, and Clyde Steamboat Company figure as defendants, and correspondents' letters, quite jeremiad in their tone. The northern archipelago has a splendid opportunity of attracting the invalid or the convalescent to its shores. Let it consider this modification of the Virgilian lines—

O! fortunatos nimium, sua si bona norint,
Caupones!

J. C. G. (New University Club) invites attention to the exquisite translation of Michael Angelo's sonnets in the *Contemporary Review* by the son of the late Dr. Symonds, of Bristol. That sonnet in particular which Michael Angelo wrote when painting the roof of the Sistine Chapel is full of medical interest. The work obliged him to lie on his back, and paint in a constrained position, in consequence of which his eyes became weakened and his health impaired.

THE communication from the *Lord Mayor of London* is acknowledged with thanks.

A GERMAN STOMACHOMETER.

To the Editor of THE LANCET.

SIR,—Karl Russ, the popular German scientific writer, has recently published two analytical forms in relation to our daily food, which have been much quoted in Germany, and which may be not without interest to the general English public. The first exhibits the proportion of albumen in the following:—

	Parts of Albumen.
In 1000 parts of pigeon	209·35
„ duck	203·39
„ venison	187·83
„ goose and chicken	182·60
„ beef	174·63
„ veal and mutton	173·82
„ pork	171·27

As to the duration of the digestive process depending upon the greater or less amount of fatty matter in the food, the second table shows the time required for the following:—

	Hr.	Min.
Venison, boiled brain, salmon, trout, poached eggs	1	35
Lamb, woodcock, fried potatoes...	2	30
Boiled beef, chicken fricassée, oysters, and rice pudding ...	2	50
Roast beef, roast mutton, beef-steak, brown bread	2	
Boiled mutton, boiled beef, hard-boiled eggs, butter and potatoes	3	30
Boiled chicken, boiled fat beef, dry bread	3	40
Roast veal, roast duck, kippered salmon...	4	
Roast pork, boiled pork and pease-pudding	4	15
Boiled pork (alone)...	4	45

Perhaps the duration of time may not be individually inflexible, for

"'Tis with our *stomachs* as our watches; none
Goes go just alike, yet each believes his own."

Your obedient servant,
Gray's-inn-square, Sept. 1872. CECIL CURWEN.

A Candidate.—The Public Health Act can be obtained for 8*d.* at the Queen's Printing Office, 9, East Harding-street, Fetter-lane, E.C. All Orders in Council are published in the *London Gazette*, which may be procured at Harrison's, 45, St. Martin's-lane, W. The necessary degrees or diplomas of a health officer under the Act are similar to those required for a Poor-law appointment—i. e., he must be "a registered practitioner."

Mr. C. N.—No charge should be made for a certificate of death.

Presbyter is not entitled to take a single sentence and to read it as if it were introductory to that which preceded it, and from which it is separated by a full stop. Two definite statements of fact are made in the successive sentences. But we are rather disposed to think that the practice referred to, although for many reasons permissible to individuals, is discreditable to the profession as a whole.

Mr. J. Winter Dryland.—We are not aware of the existence of any special work on the subject. We may refer our correspondent to a series of papers bearing on the question in the last volume of THE LANCET.

Dr. Neale's (St. John's-wood) grievance shall be duly considered.

EAST INDIES.

To the Editor of THE LANCET.

SIR,—Your correspondent, "F. G.," in your issue of Aug. 24th, will find precisely the work he requires in "The European in India, with Medical Guide for Anglo-Indians," published by Messrs. King and Co., Cornhill, London. Yours faithfully,
September 16th, 1872. ANGLO-INDIAN.

FIVE POUNDS PER ANNUM!

AT a recent meeting of the Local Board of Middleton, it appears from a newspaper report which has been forwarded to us that a medical officer was appointed "at a salary of £5 per annum," the appointee being Dr. James Atkinson, whose first report in that capacity seems to have been made forthwith. We gather that, although Dr. Atkinson notices much improvement in Middleton since a former inspection of his, made six or seven years ago, "there are many things requiring alteration and improvement" yet; which strikes us as rather a mild way of putting the case, seeing that "the greater portion" of the place was built "previous to the existence of the board, *and without any regard to sanitary purposes.*" The natural inference from this latter fact is, that the duties of a medical officer of health under such circumstances would be somewhat arduous; but probably Dr. Atkinson felt that as the board had estimated the value of his services at so extremely moderate a price, their feelings might be hurt by anything but a very modest description of the probable extent of his work.

THE LATE MR. R. WINSTANLEY.

WE are requested to state that the late Mr. Robert Winstanley, whose obituary appeared in THE LANCET of August 31st last, should have been described as the *nephew*, and not the "son, of the late Dr. Winstanley, of Manchester."

An Investigator.—It often requires a long time for even great discoveries to be generally recognised and received. We believe there is in the Paris Academy of Medicine a record to the effect that as late as the year 1672—that is, forty-four years after Harvey had given to the world his "Exercitatio de Motu Cordis et Sanguinis"—a candidate for membership of the Academy, named François Bazin, maintained in his thesis the impossibility of the circulation of the blood.

Mr. W. Mead.—We do not prescribe. Our correspondent should consult some respectable practitioner in his own neighbourhood.

Idris.—Parkes on Hygiene, or Corfield on the Treatment and Utilisation of Sewage.

BEE-STINGS.

To the Editor of THE LANCET.

SIR,—By a singular coincidence, I have another case of "bee-sting, with alarming symptoms," under treatment.

An elderly lady was stung last evening by a bee, and shortly afterwards was seized with feelings of general malaise and a severe attack of nettle-rash, for which she took a warm-bath, after which, feeling worse, she sent for me. She was depressed, with a weak pulse of 96, and her other symptoms were similar to those experienced by the Rev. J. C., with the addition of vomiting her supper, of which she partook immediately after being stung. I ought to add that her brother-in-law applied some tobacco to the sting, such being his usual practice, and, he says, always attended with good results. I think it scarcely possible that a sufficient quantity of tobacco-juice could be absorbed to produce the effects experienced. A sister of this lady suffered severely some years since from being stung. Brandy, ammonia, and spirit of ether and chloroform were administered with great relief. The patient had a good night's rest, and to-day is feeling quite comfortable, but very languid, and the eruption is still apparent.

I remain, Sir, your obedient servant,
Cerne Abbas, Dorset, Sept. 3rd, 1872. JOHN EWENS, L.R.C.P.

An Urgent Inquirer.—We do not know of any Acts of Parliament specially bearing on the subject; but it is alluded to in many official documents, as, for example, in the Report of the Commission on Workhouses, and in that of the Commissioners on Army Barracks and Hospitals. It is not easy to name the requisite cubic space, in the absence of information as to the means and amount of ventilation of the building itself. To put it strongly, ventilation would be necessary in a church or a band-box to maintain the purity of the air when occupied by any breathing animal. In workhouses 400, and in barrack-rooms in this country 600, cubic feet of space per head is held to be requisite. In the case of hospitals, much will depend upon the site and construction of the building, the character of the ventilation, and the nature of the diseases or injuries under treatment. In army hospitals 1200 cubic feet of space per patient is the regulation allowance. At Swansea Hospital, which Mr. Galton says appears to him to embody most fully all sanitary requirements with great simplicity of form, the floor space is 100 feet per bed; the cubic space 1600 cubic feet. As our correspondent is aware, there is some difference of opinion on these subjects; but he ought not to have much difficulty in forming one for himself on the above data, or on those furnished by Dr. Parkes in his work on Practical Hygiene.

E. E. C., M.B., C.M.—We have not space for the insertion of petty professional differences such as that described by our correspondent. All concerned must have dignity enough to "live down" trivial annoyances of this sort.

Henley-on-Thames.—1. The guardians are at liberty to elect any medical man resident within the *district*.—2. The qualifications are sufficient.

THE CASE OF MR. CROFT, SURGEON, OF SNITTERFIELD.

To the Editor of THE LANCET.

SIR,—In your journal of the 7th instant you insert a letter on the above case from Mr. Lawson Tait, of Birmingham, wherein he states that my poor child, Henry Need, was my second child, the first also being dead. This is a gross falsehood, and calculated to do me an injury. I never had but one child—viz., the deceased Henry Need, and I defy Mr. Tait to prove otherwise. I have been shamefully illused throughout this unfortunate case, and I trust to your sense of justice and fair play to insert this letter in your next number. I am, Sir, your obedient servant,
Stratford-on-Avon, Sept. 16th, 1872. ELLEN BABTOCK.

LLANDUDNO.

Dr. James Nicol, of Llandudno, observing that the name of this seaside resort was conspicuous by its absence in an article that recently appeared in THE LANCET on "English Watering-places," has been kind enough to enclose us a copy of a communication recently addressed by him to *The Times*, in which he has pointed out that the Registrar-General's reports in the case of Llandudno are misleading, from the fact that it is included in the subdistrict of Creuddyn, which embraces eight parishes. Dr. Nicol makes out that the death-rate of Llandudno proper is very low, and entitling it to rank among the very foremost of our favourite health-resorts.

Amateur Surgery.—Our correspondent is thanked for the extract forwarded by him. It is not uncommon for a paragraph of the kind to appear occasionally in some country paper or other, giving a description of apparently a very common exploit in amateur surgery—viz., that of reducing—*mirabile dictu*—a dislocation of the neck, which generally, too, goes "into its socket with a jerk"!

Mr. Vincent Jackson, (Wolverhampton.)—We are compelled to defer any remarks until next week.

A Medical Graduate will find (1) Nicholson's Text-book on Zoology and (2) Lyell's work on Geology supply the information he requires.

M.D.—We cannot recommend the book.

One who sees the Facts.—The whole subject has been, and is, engaging our serious attention. There are, however, several grave misapprehensions in the writer's mind on the question, which will be easily removed, as we hope, by the systematic digests of the Act which we propose to insert in THE LANCET.

Surgeon G., (Penryn, Cornwall.)—Fungi are classified as edible and non-edible, the former being not only eatable, but palatable and nutritious; while the latter are dangerously poisonous. In the Rev. Dr. Badham's well-known work—indeed in all complete Botanical treatises—the distinction required by our correspondent is amply illustrated.

Œsophagus.—We agree with our correspondent that if the bean really went down the larynx, neither patient nor practitioner can have heard the last of it.

PROFESSIONAL ADVERTISING.

To the Editor of THE LANCET.

SIR,—With regard to the letter of Mr. W. Slimon, of Buckingham, I may mention that I would not have noticed it at all had it not been for the kindness of a neighbouring practitioner, who directed my attention to the epistle, and assured me that he as well as others entirely approved of my conduct. Further, had it not been for my intimation, this gentleman would not have known of my existence, nor would I have discovered that I had a friend so near at hand. The advertisement was designed for the information of the locality in which I practise, and for my colliery patients in particular. I assure you I had no idea that the *Hamilton Advertiser* was read in Buckingham.

It is not usual for graduates of the University of Edinburgh to have recourse to so despicable a line of action as professional advertising; but the truth is, Sir, I was very recently appointed out of a batch of candidates to this place, so that I came to the locality "a stranger in a strange land"; and from the fact that many of the workmen upon whom it is my duty to attend are scattered far and near, I caused to be inserted in our local paper my whereabouts as being at Hairlees Hill.

I am, Sir, yours, &c.,

Larkhall, Sept. 3rd, 1872. CHARLES STEWART, M.B. Edin., &c.

A Scotch Clergyman has a parishioner, aged sixty-six, who has snuffed heavily for the last fifty years. His general health is good; but in the morning his hands shake as if he had paralysis agitans. If he snuffs before breakfast he can't feed himself; if he don't snuff, he can. But still he can't break himself of the habit. What is to be done? Practitioners north of the Tweed have failed to do him any good.

Mr. R. O. Clark should procure the Act.

Sarz (Kildare) will find in Dr. Letheby's Cantor Lectures on Food (second edition, Baillière, 1872) a full exposition of the analysis of diseased meat, and directions how to conduct it.

A Mother.—Garden rhubarb is perfectly wholesome for healthy persons, and is an advantageous form of taking vegetable food at the times when it is in use. There are certain constitutional states in which (like many other things) it would be prohibited.

Dr. Metcalfe Johnson (Lancaster) is thanked for his pamphlet, which shall be duly noticed—when it arrives.

ON SYPHILITIC CONSTRICTION OF THE ŒSOPHAGUS AND PHARYNX.

To the Editor of THE LANCET.

SIR,—Mr. West will find a very similar case to the one which he brought before the annual meeting of the British Medical Association, and which was published in THE LANCET for August 31st, recorded by me in the "Transactions of the Pathological Society" for March, 1872. In this case the soft palate was incorporated with the posterior wall of the pharynx, shutting off the opening of the posterior nares from any communication with the fauces. The epiglottis, too, was lost, and, in addition to the pharyngeal constriction, the upper opening of the larynx was very small; the latter condition, however, might be looked upon as conservative in its character, as it would tend to prevent the escape of fluid down the air-passages. Though the patient, a man of middle age, was frequently in danger of death from starvation, he escaped this peril to perish from a severe attack of hæmoptysis, consequent upon the breaking down of a large vomica in the apex of one of the lungs. The aspect of the pulmonary deposits, which were softening in several places at the time of death, led me to regard them as of a syphilitic (gummous) nature. Yours truly,

Manchester, Sept. 10th, 1872. S. M. BRADLEY.

CHILDBIRTH AFTER BURIAL.

In the *Zeitschrift für die Staatsarzneikunde* of Berlin, Dr. Klaatsch records the case of a pregnant female, who was suspected of having been poisoned by her husband, and was, in consequence, exhumed a month after death. A fœtus of about seven months old was found in the coffin between the dead woman's legs, and "must," says Dr. Klaatsch, "have been born after interment." He adds that the withdrawal of gas from the intestines becomes a mechanical agent in expelling the fœtus, relaxation of the uterus by inversion assisting the expulsive process. M. Deneux, in a memoir on the subject published in 1823, supports the same view. So that the case of Eliza Macloughlin (THE LANCET, April 13th, 1872), who, when exhumed, was found delivered of a child in her coffin, is not a solitary one. We are indebted to Dr. R. G. Samuels, of Wanganui, New Zealand, for the references to the works in which the opinions of Dr. Klaatsch and M. Deneux are found.

L. M. N. (Newcastle) could not do better than read, learn, and inwardly digest the late Dr. Andrew Combe's truly admirable treatises on "Physiology" and the "Management of Infancy." Both works have repeatedly been re-edited—first, by the late Sir James Clark, Physician to the Queen; and lately by Sir James Coxe, one of Her Majesty's Commissioners in Lunacy for Scotland.

The Indian Reliefs.—Our correspondent is thanked. We shall not lose sight of the subject; but there is nothing, we think, to be gained by returning to it at present.

Mr. MacDowall's communication has been received, and shall have our early attention.

CORRIGENDUM.—In the report by Mr. G. W. Roberts of a Case of Recovery from an Attack of Traumatic Tetanus, published in our issue of the 7th inst., page 333, an omission occurs the supply of which is of importance to the right understanding of the case. Amongst the remedies stated to have been employed were "half-ounce doses of succus"—the word "conii" should have followed.

COMMUNICATIONS, LETTERS, &c., have been received from—Professor Brown, Bridlington; Sir Alex. Taylor, Derby; Mr. Broughton, Calne; Mr. Davies, Weybridge; Mr. Morton, York: Dr. Morehead, Edinburgh; Mr. P. Milner; Mr. Bulteel, Plymouth; Dr. Greenwood, Penryn; Mr. Simpkin, Lopham; Dr. Lowndes, Liverpool; Mr. Phillips, Horbury; Mr. Croft; Dr. Yarrow; Mr. Macdowall; Mrs. Bastock, Stratford-on-Avon; Dr. Ward, Hatton; Dr. Redford, Mexborough; Mr. Dryland, Kettering; Mr. Norton, Portsmouth; Mr. Mead; Dr. Cray, Dalkeith; Mr. Rowe, Maldon; Mr. Archer, Burton; Mr. Richardson; Mr. Ward, Lymington; Dr. Nicol, Llandudno; Mr. Thornhill; Mr. Dymond, Caterham; Mr. Doughty, Lynn; Mr. Ford; Dr. Devereaux, Tewkesbury; Mr. Scott, Margate; Mr. Pearse, Hornsea; Mr. Watkin; Mr. Percy, Canterbury; Mr. Relfe, Darlington; Mr. Harvey, Stroud; Mr. Jackson, Wolverhampton; Mr. R. Hall; Mr. Jessop, Leeds; Mr. Holmes, Leeds; Mr. Johnston, Dover; Mr. Walker, Bristol; Mr. Cox, Newport; Dr. Newman, New York; Mr. Wilson; Mr. Murphy, Stirling; Mr. Corf, Richmond; Mr. Bowring, Manchester; Mr. Kemp, Douglas; Mr. Hanway; Messrs. Jones, Son, and Mundy; Mr. Hove, Wateringbury; Dr. Grant, Longton; Mr. W. Shaw, Henfield; Miss Pearce, Margate; Mr. Wharton; Dr. St. Clair, Blackpool; Mr. Davies, Selby; Mr. Collyer, Newington; Mr. Miles, Southchurch; Mr. Woodley; Dr. Leary, Queenstown; Mr. Caton; Mr. James; Mr. C. Stewart; Dr. Loewenberg, Paris; Dr. Hornibrook, Kinsale; Dr. Anderson, Kingston, Jamaica; Dr. Evans, Cardiff; Dr. Roberts; Dr. Beadnell, Newton Abbott; Rev. W. G. Proctor, Lower Darwen; Mr. Lyle; Mr. Hedges; Mr. Northey; Mr. R. Smithson; Mr. Dalton, Cheltenham; Mr. Bruce; Mr. Waldron; Mr. Hodges, York; Mr. T. Williams; Mr. Lucombe; Dr. Duncan, St. Andrews; Dr. Campbell, Sunderland; Dr. Bogg; Mr. Coates; Mr. Thomas, Dudley; Dr. Serducoff, Moscow; Dr. Burder; Mr. Johnson, Lancaster; Mr. L. Armstrong, Newcastle; Mr. J. W. Smith, Coxwold; Dr. Palmer; Dr. Collier, Homerton; Dr. Paget; Dr. Lankester; Mr. J. Barton; Mr. J. Allen; Mr. Kidd, Otley; Mr. Briggs; Mr. Corby, Ravensworth; Mr. Bennett, Spalding; Mr. Brown, Penrith; Mr. M'Donald, Jedburgh; Mr. W. Fawcett, Middlesborough; Mr. Gilruth; Dr. Munro; Dr. Samuels, Wanganui Lime, New Zealand; Dr. Black; Mr. Cobbett, Manchester; Dr. Carson, Cockran's Mill, Pennsylvania; Mr. Hill, Rymere; Dr. Wood, Gateshead; Dr. Jefferiss, Orkney; Dr. Underhill, Summerfield; Dr. A. Robertson, Glasgow; Mr. T. Horsley, Oxford; Dr. C. Reed; Dr. M'Calman, Scourie; Epsilon; P. C. S.; J. T.; The Lord Mayor of London; M.D.; The Editors of the Medical Directory; A Mother; W. L., Dublin; Senex; Physiologist; Œsophagus; L. M. N.; H. K. P., M.D., Madura, India; J. C. G.; Presbyter; &c. &c.

Liverpool Mercury, Manchester Critic, La France Médicale, Harrow Gazette Journal of the Scottish Meteorological Society, Canada Medical Journal, Railway Service Gazette, Sunday Times, Aberdeen Free Press, Northern Echo, Répertoire de Médicine Dosimétrique, and *Gazetta Medica Italiana Lombardia* have been received.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line.....	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.